CLINICAL MEDICINE and SURGERY

VOLUME 40 May, 1933 NUMBER 5

LEADING ARTICLES

COMPLETE TABLE OF CONTENTS ON ADVERTISING PAGE FOUR

ALBRECHT VON HALLER

VOL. 40 MAY, 1933 No. 5

CLINICAL MEDICINE AND SURGERY

Von Haller

Founder of Scientific Bibliography

AS *ONE* studies the careers of those who have developed the science and art of medicine to its present position, it is worthy of note that many of them were men of great versatility and were famous in several departments of knowledge and activity. This seems to support the thesis that, to attain high rank in any line, one must first be a good, all-around human being.

Albrecht von Haller was born in Bern, Switzerland, in 1708, of a fine old family of bourgeois aristocrats, and proved to be an infant prodigy, whose subsequent career upset the commonly held idea that these little freaks of nature never amount to anything. At ten years of age he was writing Latin verses and a Chaldee grammar, and at sixteen showed his professor of physiology an error in his observations.

After graduating at Leyden, where among his teachers were Albinus, Winslow and the great Boerhaave, he began to accumulate fame as a poet and botanist and was finally lured away to the then-new university at Göttingen, in which, for seventeen years, he taught all branches of medicine to the satisfaction of everyone concerned, and did a great many other things, also successfully.

When he was forty-five years old he was suddenly seized with homesickness and returned to his native city to live out the remaining twenty-four years of his life (he passed to his rest in 1777), in modest dignity, as a public health official, scholar and oracle on almost everything — one of the show-pieces of the community.

Von Haller's industry was as astonishing as his versatility. He was equally eminent as an anatomist, physiologist and botanist; wrote notable poems (especially "*Die Alpen*" — 1729), historical novels and more than 13,000 scientific papers (all in faultless Latin); established botanic gardens and churches; became the founder of medical and scientific bibliography (four bibliographic volumes, on botany, anatomy, surgery and the practice of medicine, came from his pen); and carried on the most gigantic correspondence in the history of science.

In anatomy, his "Atlas" (1743) did much to establish actual conditions in the minds of students. His outstanding contribution to physiology was the laboratory demonstration of Glisson's hypothesis, that irritability (contractility) resides exclusively in muscular tissue, while sensibility belongs to nervous structures. He also, at the age of twenty-eight, recognized the fact that bile plays a part in the digestion of fats and later reasserted the theory of the muscular autonomy of the heart's action. In fact, his studies laid the foundation for much of the later work of Müller, Ludwig and Claude Bernard, and many of his conclusions sound astonishingly "modern," even today.

In embryology, however, he was a reactionary, holding ideas curiously tinctured with ecclesiastical superstition, and scoffed at the correct ideas of Kasper Wolff. Thus the power of his great reputation, wrongly directed, held back progress along this line for half a century.

Though he lectured and wrote extensively on surgery, he never performed an operation.

In person, von Haller was a large and striking-looking man who, in his youth, was unusually handsome. He has been described as a physical and intellectual giant. In his private life he was modest, sensible, kindly and charitable, but had a curious feeling of infallibility about things

he professed to know. Robinson speaks of him as a harmonious compound, whose elements were united in definite proportions.

The outrageous sensualist, Casanova, has, strangely enough, left us a record of the deep impression made upon him by von Haller's steadfast, simple and unvarying probity and uprightness, both as to precept and example.

Here we have a picture, worthy of universal emulation, of a man who was an outstanding figure in general scholarship, in literature, in many branches of scientific research and in civic usefulness: possessing dignity, simplicity, the authority of wide and varied knowledge and, moreover, phenomenal energy and industry, so that he left an impress upon the world's thinking for all the years to come.

The ignoring of cultural values is a shameful crime of ignorance.—NICHOLAS ROERICH.

SENTIMENT AND MOTHER'S DAY

THERE is probably no word in the English language which carries such a freight of emotional reactions as that borne by the word, "Mother." Generally, but by no means always, this is as it should be.

When "Mother's Day" was instituted some years ago, it may have been merely the uprush of natural and proper sentiment in the bosoms of its promulgators. Of late, however, it has been commercialized to a distressing degree, so that its true significance, like that of Christmas, has largely been lost.

Recently an effort is being made to use this day (May 14, this year) for reminding the public that our maternal deathrate in confinement is far higher than it should be, and that there is an urgent need for better obstetric care in this country.

An attempt of this sort is laudable, providing that those who sponsor it have truly constructive suggestions to make for improving matters, and that they stick to facts in their propaganda to the public.

Neither of these provisions has been adhered to very closely in the copy which is being broadcasted by the Maternity Center Association. Few informed persons will agree with the statement, "Leading authorities are unanimous in the opinion that efforts to relieve normal pain tend to increase the need for operative interference and multiply the danger of infection and other complications."

"Meddlesome midwifery" is generally the result of *impatience* on the part of the patient, her family or the physician, and there seems to be sound reason to believe that intelligently applied obstetric analgesia can reduce the solicitude of the patient and her relatives, even if it does nothing for the accoucheur who is afflicted with the modern speed mania. Facts like these should be given to the people freely.

Another aspect of the matter, now widely overlooked, is that, if motherhood is to have any sacredness, it must be strictly *voluntary*. Many of those who are communicating their excitement over unsatisfactory obstetric care, are also doing their best to obstruct the dissemination of scientific information regarding birth control, through which alone voluntary motherhood is made possible.

By all means, let us love our mothers and show that love in every possible way. Let us also use our best endeavors to improve the care bestowed upon mothers in their confinement. But let us look at the matter in a broad and openminded way and not permit wholesome sentiment to deteriorate into hysterical and commercialized sentimentality.

Reason judges: wisdom observes. To judge is to cease learning. — PAUL RICHARD.

METAPHEN IN PEPTIC ULCER

THE medical treatment of gastric and duodenal ulcers has been pretty well standardized for a number of years. The Sippy regimen (rest in bed, a restricted diet — chiefly milk and cream, at first — and large doses of alkalies) has been the common procedure, and has given reasonably satisfactory results, from a professional standpoint, but not so good from the patient's economic position.

More recently, gastric mucin seems to have been doing these patients good, but it is still so expensive and disagreeable to take that its field of usefulness seems to be somewhat limited, for the present at least.

The newest idea in this line is that of Trippe, of Asbury Park, N. J., who has been giving his ulcer patients Metaphen, 1:500, by mouth, with results which make him enthusiastic — 79 apparent cures out of 82 patients. Though himself a neuropsychiatrist, he feels that insufficient attention has been paid to the condition of the stomach and bowels; and that Metaphen, being a remarkably efficient antiseptic, especially against streptococci, performs a valuable function in these cases, without danger of toxic effects, even when given over long periods.

Others are becoming equally enthusiastic over this new method of treatment of these old and trying conditions, which is especially pleasing to the patients, because they do not have to

spend so much time in bed and can begin eating a reasonably normal diet almost at once.

One physician suggests that the 1:500 aqueous solution of Metaphen be combined with an equal quantity of glycerin and that the dose begin with one teaspoonful of the mixture (so as to test for possible idiosyncrasy for mercury), increasing to two teaspoonfuls after two or three days. These quantities should be taken, in a half-glass of water, half an hour before meals (three times a day) in cases of gastric ulcer, and two hours after meals, similarly diluted and followed by a glass of milk, if the lesion is in the duodenum.

In view of the simplicity, safety and surprisingly gratifying reported results of this form of treatment, it should be thoroughly and critically tried by physicians all over the country. Every case so treated should have a roentgenologic examination, following a bismuth meal, before and after the treatment, so that *objective* results can be recorded and reported. The *prompt reporting* of these results is especially desirable in connection with a promising new treatment like this, so that a sound estimate of its value can be made as quickly as possible.

The spearhead of true intelligence is action.—J. KRISHNAMURTI.

PSYCHIC ASPECTS OF HERMAPHRODISM

CASES where the sexual organs of a person of one sex simulate those of the other or where the organs of both sexes are more or less completely present in one individual, always arouse keen interest, in laymen as well as in physicians, partly because of the comparative rarity of such conditions, but chiefly, perhaps, because of the strong emotional complexes which have been connected with those parts of the anatomy for the past 500 or 1,000 years.

Most people, however, never think beyond the physical aspects of these cases. This is superficial thinking and does not reach the crucial factors. The person whose generative organs are so far from the usual pattern as to make normal, heterosexual relationships impossible, is the prey of psychic repressions and conflicts which are enough to upset the equilibrium even of a sound and well balanced personality.

This is, perhaps, especially true of the pseudo-hermaphrodites, because in them the gonads, which determine the direction of the sexual impulse, are not matched by external organs, through which alone that impulse can be satisfied in a normal manner. The true hermaphrodite — a very great rarity — is the victim of mixed emotions in this line, which, theoretically at least, are unlikely to be distressingly strong in one direction or the other, but may be of such a nature as to cause definite psychic disturbances.

Consider the case of a person who is, biologically, a male, but whose external organs simulate the female pattern sufficiently closely to deceive the parents. In such a case, the child will be brought up as a girl and may, himself, be mistaken as to his sex until full maturity is reached, because of the reticence which still imposes ignorance upon a distressingly large section of the population. Imagine the emotional and mental turmoil in such a one, if or when the facts are discovered — the apparent necessity, perhaps, for rebuilding the life upon a fundamentally different basis. This, by the way, need not be done, if the presumed-sex surroundings are satisfactory to the individual.

In the false hermaphrodite it is sometimes possible to reconstruct the external organs surgically, so that a reasonably satisfying life can be lived, in accordance with the biologic sex of the individual. In others this cannot be done, and the problem before us is the same as that which arises in true hermaphrodites and is, primarily, a psychic problem.

These cases are, definitely, in the field of the sane and enlightened psychotherapist, who must assist these unfortunates to reconstruct and co-ordinate their emotional and mental lives in such a way as to make them useful and reasonably happy members of society.

In a general way, the individual must be carefully studied, physically and psychically, to determine the sex in which he, she or it can best function, and on that basis the external pattern of the life should be arranged for the rest of the lifetime.

While none of the socalled sublimations are an adequate substitute for a normal sex life, in those who are able to live a life of that sort, they may mean the difference between social sanity and a frank psychosis, to those whose creative urge is permanently barred from its normal outlet.

There are other forms of creative activity besides that of sex, and the physician who aspires to give these pathetic individuals real help must be familiar with these vicarious outlets, in detail, and must possess a fund of patience and of human sympathy and understanding far beyond the common equipment.

In any case, the exercise of a reasonably active imagination upon the psychic problems arising in any case of hermaphrodism, and the study of

these problems, cannot fail to make the student a wiser, kinder, more tolerant and bigger human being.

The further we get away from the personal expression of human emotions, the shallower we grow. —HAROLD BAUER.

SELLING OURSELVES

TODAY and always, people have been and are buying the things which they consider necessary to their existence and wellbeing—food, clothing and shelter first, of course, and after that the things which will give them the largest returns, in happiness, satisfaction and increased efficiency, for the money, time or effort expended.

In this latter category, salesmanship plays a large part. Beyond the essentials for life, people buy the things which have been sold to them.

While the members of the medical profession have been waiting, in dignified inertia, behind the ramparts of their conception of the Code of Ethics, the twilight zoners have been selling themselves and their ideas to the public by more or less lurid, but decidedly effectual, methods.

The time is more than ripe for selling Medicine, as an art and science (not its individual practitioners), to the people, and the only way to do this ethically is to *educate* them.

The title, Doctor, used to mean a teacher, and we should not permit that meaning to be lost; but few physicians have time to explain, to a dozen or a hundred or more patients and friends, the strides which have recently been made in medical science and the immensely valuable services which our profession is now prepared to offer them.

That is where we come into the picture. Some months ago, the editor of this journal undertook to prepare for its readers, small pamphlets, written in layman's language, explaining some of the things everybody ought to know about modern medical practice, and published in a form and at a price which would make their wide distribution possible. Two of these ("Who's Your Health Banker?" and "What About Heart Disease?") have already appeared and have been placed in the hands of more than 25,000 of the patients of our readers, where they are selling the medical profession every day. Another is now ready — "Serums and Vaccines." Every one of these booklets, properly located, ought to pay dividends of 500 percent on the price of a hundred of them.

Those who have used the first two will want a supply of the third. Those who have not done so are invited to write for samples and prices (a post card will do), so as to begin collecting these dividends *now*. There is nothing in this for us, except the joy of doing a helpful service.

The fear of disease and death takes the joy out of health and life, and defeats the very purpose for wishing to live long. — DR. THURMAN B. RICE.

THE UNIVERSITY OF MANHOOD

THE great need today, in all lines of activity, is for men with self-starters — men who can and will assume responsibility and govern themselves. But where is one to find them, in the numbers that are needed?

The United States Government has gone into the business of training men like that, and calls the schools where the work is done, Citizens' Military Training Camps. Last year, 37,000 fine young men attended these schools and were vastly benefited, in body, mind and morale. Nearly as many more were turned away, because the members of Congress were more interested in spending money to build political fences than in using it to build American citizens. They will not appropriate money freely for this immensely valuable national enterprise (which gets them nothing, personally) unless they are *told* how their constituents feel about it. We must tell them!

Any physician who knows a boy needing such training, should put him in touch with the proper authorities. The "entrance requirements" for this "University of Manhood" are simple — one must be a healthy American, of good character, between the ages of seventeen and twenty-four. Uncle Sam (which means all of us, in due proportion) pays all necessary expenses. Where else can a young man take a wholesome, exciting and character-building vacation free?

The U.S. Army Information Service, 39 Whitehall St., New York City, will be glad to tell anyone who is interested all about it.

LEADING ARTICLES

The A. B. C. of Vitamin Therapy

(Part 1)

By A. Stanley Cook, Ph.D., Montreal, Can.

THE question of the clinical importance of the modern discoveries in the vitamin field is a somewhat controversial one. Some clinicians maintain that the average diet of the normal individual contains an ample supply of vitamins and that, with a few exceptions, such as the now-universal use of vitamin D for the prevention and cure of rickets and the vitamin treatment of the comparatively infrequent cases of scurvy, beriberi, pellagra and xerophthalmia, there are no indications for the use of concentrated medicinal preparations of the various vitamins.

On the other hand, there is a growing mass of evidence to indicate that, owing to the high percentage of urban population and the tremendous increase in consumption of sugar and highly milled cereal products which are devoid of vitamins, there is a danger of quantitative vitamin deficiency for large sections of the population. If the healthy individual lives on a diet which verges on the borderline of vitamin deficiency, then it is clear that a further restriction of diet, caused by disease or poverty, will result in mild or even severe deficiency disease.

While laboratory investigation has added much to our knowledge of the results of severe dietary deficiencies in experimental animals, we have no very clear-cut clinical picture of the effects of partial deficiencies in the human subject.

In the human field investigation is more difficult and results more open to misinterpretation, due to the fact that multiple dietary deficiencies are more likely to occur, or the deficiency may be masked by disease of other origin.

There is, therefore, need for careful scrutiny of his patients' diets by every physician, not only as to what foods are eaten, but also as to what quantity of each is consumed. Then, if there appears to be any possibility of an insufficiency of any dietary constituent, these factors can be supplied by prescribing foods or medicinal preparations which are potent sources of the factor under suspicion. It should also be remembered that a diet, like a chain, is no stronger than its weakest component. If deficient in more than one respect, it will not be materially improved by supplying only one of the missing elements.

Numerous tables[1] are available, showing the distribution of the various vitamins in most common foodstuffs, so only a few of the best sources will be mentioned in the following paragraphs.

VITAMIN A

Fat-soluble vitamin A is the growth-promoting and "anti-infective" factor present in the liver oils of cod, halibut and other fish, mammalian liver, butter, etc. It has been isolated recently by two independent groups of workers, in an approximately pure state. Chemically, it is a complex, monatomic alcohol ($C_{20}H_{29}OH$) and is closely related in structure to its precursor, carotene. Physiologically, the purest preparations of the vitamin are extraordinarily active, so that 0.0001 of a milligram daily will cure xerophthalmia in 48 hours, and one-quarter of this amount will cause a slow resumption of growth in an A-deficient rat.

Carotene, a yellow pigment, occurring in many green-leaved and yellow-rooted vegetables, appears to be the immediate source of vitamin A. Carotene, synthesized by the plant is converted to vitamin A by the animal organism and stored in the liver. This conversion, demonstrated beyond doubt by Moore and others, is effected by the agency of an enzyme present in the liver, which has been named **carotenase.**

An inadequate intake of vitamin A manifests itself, both in the experimental animal and in the human being, by a restriction of growth, emaciation, hemeralopia, xerophthalmia and an increased incidence of respiratory and other infections. These infections, which invariably occur in vitamin A-deficient animals, appear to be secondary to a general change in the epithelial lining of the mucous tracts, which weakens the local resistance of these tissues towards invading bacteria. This change is characterized, histologically, by a transformation of cuboidal cells into squamous epithelium, and is directly due to the vitamin deficiency.

Vitamin A is, therefore, a valuable prophylactic agent against a variety of infections entering through the mucous membrane, but it is decidedly not a magic cure-all for any and all infections, as even a healthy mucous membrane will not prevent the entry of bacteria, if the dose is large enough and the organism virulent.

1.—A., U.S. Department of Agriculture Circular #84, "Vitamins in Food Materials"; B., "Food, Health and Vitamins," by R.H.A. Plimmer, published by Messrs. Longmans Green Company, Limited, London; C., "The Vitamins," by Sherman & Smith, published by The Chemical Catalog Company.

Vitamin A has also been advocated, in massive doses, for the treatment of already established infection. While there is evidence in support of this view, it cannot be considered as proved. A larger number of adequately controlled clinical experiments is necessary to prove or disprove this contention, but in the meantime the physician should not neglect the possibility which this form of treatment presents.

Besides cod-liver oil and the much less potent food sources of vitamin A, concentrated preparations are commercially available in liquid, capsule and tablet form. In using these latter preparations it is important to satisfy oneself of their potency, as a number have been found to be valueless. A statement of vitamin potency is usually given on the package. This should be expressed in international units and determined by biologic assay. The reputation of the firms which offer these products for sale is the best index of the accuracy of their statements of potency.

"A." Requirement*

For a normal adult, the diet should contain 40 to 120 international units of vitamin A per kilogram of body weight per day, otherwise it is in need of revision or supplementing. Thus a 70 kg. man should ingest 2800 to 8400 international units per day. This amount will be contained in about 1 to 2 teaspoonfuls of good cod-liver oil; 1 to 2½ ounces of butter; ⅛ to 1 quart of milk (varying with the season); or 1 to 3 ounces of carrots or spinach, which are the richest vegetable sources. Allowance should be made for a slight loss of potency in cooking.

The requirement for infants and small children is much greater than that for adults—probably about 400 to 1200 international units *per kg. of body weight per day.*

Recent work indicates that there is very little placental transmission of vitamin A, hence the necessity of ensuring a large intake in the diet of artificially-fed infants and of a much increased intake of vitamin A in the diet of nursing mothers, since the vitamin content of the milk is dependent on the mother's diet. As any excess of vitamin A ingested is stored in the liver, an ample supply during infancy and childhood will provide health insurance against possible lean years to come. Puberty also increases the vitamin A requirement above that necessary for the normal adult, as do also conditions in which there is a high percentage of loss owing to faulty absorption from the digestive tract.

Green and Mellanby have recommended massive doses of vitamin A during the last part of pregnancy, as a prophylactic measure against puerperal septicemia. They have presented, in confirmation of earlier work which had been criticized, a series of 275 treated cases and an equal number of untreated controls, in which they achieved striking success with this treatment.

Vitamin B_1 [2]

Water-soluble vitamin B_1 is the antineuritic, antiberiberi vitamin present in yeast and wheat germ and, in much less quantity, in whole grains, vegetables, nuts and fruit. Highly potent crystalline preparations have been isolated from rice polishings by Jansen and Donath (1927) and from brewers' yeast by Windaus et al (1932). Neither of these preparations, however, is chemically pure. This vitamin is, in all probability, a nitrogenous base. It can be extracted from its natural sources by water and aqueous alcohol. At an alkaline reaction it is soluble in organic solvents such as ether. An international standard and unit have been defined for this vitamin. Dried yeast contains about 16 to 18 and wheat embryo about 8 international units per gram.

Extreme deficiency of vitamin B_1, in experimental animals, results in a complex syndrome characterized by anorexia, extreme emaciation, subnormal temperature, gastrointestinal atony, polyneuritis and ending in death within a few weeks. Beriberi, the analogous disease in the human being, is defined by Vedder as "an acute or chronic disease, characterized by changes in the nervous system and particularly by a multiple peripheral neuritis with an especial tendency to attack the nerves of the limbs, the pneumogastrics and phrenics. Ordinarily the clinical picture of a peripheral neuritis is combined, in varying degrees, with cardiac disturbances, edema, serous effusions and gastrointestinal derangements. Exceptional cases occur in which cardiac dilatation and sudden death are the first symptoms observed."

In some cases, clinical beriberi may be complicated by other deficiencies, such as nutritional edema due to lack of sufficient protein. Some Japanese clinicians maintain that an infection is usually involved.

Cases of such extreme deficiency of vitamin B_1 are rarely seen on this continent. This, however, is no reason for believing that relative shortage of the vitamin does not occur. Cowgill, in an excellent review, has pointed out several instances of mild vitamin B_1 deficiency in this country, in which a prominent feature was anorexia.

Summerfeldt, by feeding a special cereal mixture, containing wheat germ and yeast, was able to markedly increase the growth rate of infants, over those on a diet containing a like amount of ordinary cereals. Her results thus confirm work along similar lines by Bloxsam and by Morgan and Barry, showing that the diet of the average child today is capable of improvement with respect to this vitamin.

Rowlands, Dickson and others have obtained promising results in the treatment, by a high vitamin B diet, of certain cases of chronic rheumatoid arthritis, associated with a lowered tonus and hypomotility of the bowel.

Marks successfully treated a large group of patients suffering from constipation, colitis, asthenia and malnutrition by administering vitamin B in the form of ½ ounce of wheat germ daily.

*These figures are approximate and tentative, present information on this subject being decidedly incomplete.

2.—There are, unfortunately, two systems of naming the various food factors comprising the vitamin B complex. The English system, followed here, employs subscript numerals—B_1, B_2, B_3, B_4, B_5, while by the other system the antineuritic vitamin B_1 is referred to as either B or F, while the antipellagric vitamin B_2 is known as G or PP.

B_1 Requirement

The amount of vitamin B_1 required is proportional to the caloric intake or total metabolism. Therefore, the more of the avitaminous foods which are consumed, such as sugar, starches and fats, the richer must be the vitamin B_1 content of the foods constituting the remainder of the diet. When the only source of vitamin B_1 in the diet is vegetables, they must amount to 80 to 90 percent of the diet (wet basis), in order to satisfy the vitamin requirement. In the case of fresh fruits, 70 to 80 percent is necessary. Nuts, pulses, and *whole* cereal grains are somewhat richer, due to their lower water content and, when present to the extent of 30 to 40 percent, will balance an otherwise avitaminous diet. The comparative percentages of dried brewers' yeast, wheat germ, dried bakers' yeast, and wheat bran are 4, 6 to 7, 12 and 20 percent, respectively.

These figures all relate to the amount required by adult pigeons for maintenance. It seems probable that the amounts necessary for maintenance in man are somewhat lower. On the other hand, growth and lactation raise the requirement, as do any conditions which increase the total metabolic rate.

Cowgill has pointed out that prolonged fevers, or gastrointestinal disturbance, impairing absorption, may bring on symptoms of mild beriberi when the diet is just barely adequate in this food factor.

It should be mentioned that the domestic boiling of vegetables causes considerable loss of the water-soluble vitamins. In the case of spinach this loss amounts to about 50 percent.

781 William St.

(To Be Continued)

A Plea for Early Treatment in Influenza and Pneumonia

By Ira Brewster Terry, Jr., M. D., New York City

THE modern refinements of laboratory diagnosis have brought with them an unfortunate tendency, in some quarters, to delay effective treatment until there is no question about the nature of the disease. Many physicians, in fact, act on the assumption that there can be no intelligent treatment before the differential diagnosis has been confirmed by laboratory findings.

The great danger of such an expectant policy is that the patient may be deprived of treatment at the very time when it is most likely to prove successful — at the beginning of the disease. For example, I have known children with clinically recognizable diphtheria to be deprived of sorely needed antitoxin for several days because their throat cultures were, at first, negative. This delay necessarily meant increased toxemia and possibly irreparable damage to the heart.

In the case of pneumonia, early diagnosis and immediate treatment are likewise of great importance. Experience has proved that, if we institute therapy early enough, we can reduce mortality and in many cases abort the disease. In some cases treated at their very incipiency, the course of the disease has been reduced to forty-eight or seventy-two hours.

Pneumonia strikes quickly. So far from advising expectant treatment in this disease, I am one of those who insist on vigorous therapy the moment pneumonia can be recognized. This attitude is supported by the known efficacy of anti-pneumococcus serum for Type I infections, when administered in the first three days, and its uselessness after that period.

Prompt treatment depends on prompt recognition. The frank signs of consolidation — increased vocal fremitus, dullness and bronchial breathing — frequently are not present until the third day. The pathognomonic sign of rusty sputum may never appear.

Early Diagnosis

There are definite evidences of pneumonia which the astute clinican will recognize a few hours after the onset. In this way he can make his diagnosis during the stage of engorgement and two or more days before red hepatization has developed.

The typical case of lobar pneumonia, which sets in abruptly with a chill, fever, pain in the side, cough, dyspnea and herpes labialis, leaves no room for doubt, even before the chest is examined. In the cases which develop secondarily to a common cold or influenza, however, the diagnosis is not so simple.

There are certain cardinal symptoms which should help us in recognizing pneumonia within a period of hours after the onset. The character of the breathing is most important. It is suppressed in movement, somewhat jerky, and increased in rapidity in relation to the pulse. The usual 4:1 ratio is altered and may be 3:1 or less.

I regard the physical signs of engorgement as more important than those of consolidation, because they enable us to make an early diagnosis when treatment is imperative. Increased vocal resonance, dullness and bronchial breathing are of value as depicting the location and extent of the lesions and their subsequent development.

The physical signs upon which I depend for early diagnosis are: a small area of slight dullness, perhaps a few moist râles, and diminished breath sounds. These signs, in conjunction with a sthenic pulse and an increase in the ratio of the respiration to the pulse, are sufficient to clinch the diagnosis.

I much prefer to abort pneumonia, rather than allow it to develop its full virulence and then treat dangerous symptoms as they arise. My experience is that pneumonia is one of the diseases which can be nipped in the bud by prompt and effective treatment. The success of Type I antipneumococcus serum, when used within three days of inception in Type I cases, proves this contention.

During the past year I have been using, with much success, a general antitoxic agent which

hastens the crisis and, in many cases, brings the temperature down to normal within twenty-four to forty-eight hours. At the same time it produces a marked improvement in the condition of the patient.

The drug possessing these properties is a complex synthetic chemical, combining dimethylaminoantipyrinbicamphorate with a linkage product of sodium nucleinate and methenamin sulphosalicylic acid, known as Disulphamin.

In my experience this drug has proved effective in all four types of pneumococcus infection. It, therefore, eliminates the delay incidental to typing the strain of the infecting organism. The requirement is that it be used early and in effective dosage.

I realize, of course, that pneumonia is a self-limited disease and that the majority of patients will recover with no medication. However, I have observed a fall of temperature, associated with general improvement and clearing up of the pneumonic facies, so uniformly within forty-eight hours of administering Disulphamin that one cannot invoke the long arm of coincidence to explain the results. The benefit must be ascribed definitely to the therapeutic action of the drug.

Tomarkin,* in 1929, reported a series of 70 cases of broncho- and lobar pneumonia, of all ages and types, treated with Disulphamin. The mortality was 14.3 percent, as compared with a mortality of 35 to 40 percent in Bellevue and Allied Hospitals for the past ten years. In 14 cases treated before the third day, there was only one death — a mortality of 7.1 percent.

My practice is to start medication with Disulphamin immediately, three capsules, dissolved in half a glassful of cold water, every three hours. Each capsule contains 7½ grains (0.5 Gm.). In conjunction with this I order an abundance of orange juice, for its alkalizing effect and as a source of energy. Another important rule is not to stop medication abruptly. The dose should be tapered off gradually; otherwise, there is danger of the complications of pneumococcus infection.

What has been said of early diagnosis and prompt treatment in pneumonia applies also to influenzal and the less virulent grippal infections which are prevalent every winter. These are conditions which, if left untreated, readily develop serious complications: pneumonia, otitis media, mastoiditis, sinusitis, etc.

I do not approve of the use of mere analgesics in influenza. The complications of the disease are too serious. We cannot trifle with them. My custom is to prescribe three capsules of Disulphamin every three hours during the first day, gradually reducing the dosage as the fever falls. As a rule the temperature is normal by the third day of medication. It is very important to continue medication in gradually decreasing doses for some time afterward; otherwise, the patient is only too likely to suffer a relapse and develop complications.

In my experience this drug has proved of value for the gastrointestinal as well as the respiratory form of influenza. It is also highly beneficial in related grippal conditions and in severe cases of common cold. Its action seems to be that of a general antitoxic, heightening resistance to infection, because I have found it of value for disturbances of a diverse nature. These include puerperal septicemia, angina and neuritis.

No untoward results have ever followed its use in my practice. I gave a pregnant woman with intestinal influenza three capsules every three hours for three days. She showed no ill effects and later delivered a healthy child.

Summary

1.—To reduce mortality in pneumonia, an early diagnosis and prompt treatment are essential.

2.—The signs of engorgement can and should be recognized within a few hours of onset.

3.—Disulphamin medication, administered at this time, hastens the crisis and frequently aborts the disease. In some cases the temperature drops to normal in forty-eight hours, with corresponding improvement in the condition of the patient and disappearance of the pneumonia facies.

4.—Prompt treatment of influenza with Disulphamin checks fever, relieves the symptoms and shortens the duration of the disease.

5.—It is important that medication should not be terminated abruptly, but gradually tapered off.

129 E. 92nd St.

*Tomarkin, L.: A Contribution to the Chemotherapy of Diseases of a Septic Nature. *International Journal of Medicine and Surgery*, Dec., 1929.

WHAT IS A PROFESSION?

Justice Brandeis, of the United States Supreme Court, is credited with this definition of a profession:

"First, a profession is an occupation for which the necessary preliminary training is intellectual in character, involving knowledge, and to some extent learning, as distinguished from mere skill.

"Second, it is an occupation which is pursued largely for others and not merely for one's self.

"Third, it is an occupation in which the amount of financial return is not the accepted measure of success."

Notes from the American College of Physicians

Reported by George B. Lake, M.D., Chicago

MONTREAL is an excellent place for a medical meeting and was the wise choice for the seventeenth annual clinical session of the American College of Physicians, held in February, 1933. The city, with its pleasant, Continental flavor, is charming, and the hospitals are numerous and active, giving one an opportunity to see methods and practices differing, in some respects, from those common in the United States.

The attendance was fully up to what one had a right to expect, under the circumstances, and the interest in the sessions and in the small but well-arranged scientific and commercial exhibits was high and well sustained. It was a pleasure to come into contact with so many of our keen Canadian confreres.

Windsor Hotel, Montreal, Where the Meetings Were Held

The social features of the meeting were marked by cordial hospitality and the whole occasion was a success. Dr. Jonathan C. Meakins, of Montreal, professor of medicine at McGill University, was chosen as president elect, and will take over the gavel from Dr. George M. Piersol, of Philadelphia, at the 1934 meeting in Chicago.

ABSTRACTS OF SOME PAPERS AND CLINICAL LECTURES

Irradiation Treatment of Hyperthyroidism

By George E. Pfahler, M.D., F.A.C.P., Philadelphia, Pa.

The normal parathyroids are not radio-sensitive, and the irradiation treatment of goiter does not injure them. Adhesions are not a factor requiring serious consideration, nor is subsequent surgery (if needed) more difficult.

Improvement of the thyrotoxic patient, following irradiation, is only slightly slower than that following surgery; and heart damage does not progress markedly more under the former than under the latter treatment.

The standard of cure (which might, perhaps, better be called "economic restitution") in cases of thyrotoxicosis is: A basal metabolic rate between plus ten and minus ten; pulse and weight, normal; goiter reduced to insignificance.

Under this standard, irradiation results in cure in 50 percent of cases, and in marked improvement in 37.9 percent — a rate of 87.9 percent favorable results, which is as high as that following surgery. I have seen only two recurrences after *adequate* treatment. After insufficient irradiation, *apparent* recurrences have responded to more treatment.

One should begin with small doses of radiant energy (forty percent of a skin-erythema dose), and repeat up to six times. Radium is better than x-rays, in some cases. We must not neglect other measures of proved value in the care of these patients.

Diagnostic Use of Iodine in Thyrotoxicosis

By James H. Means, M.D., F.A.C.P., Boston, Mass.

Iodine is useful in the diagnosis, as well as in the treatment, of thyrotoxicosis. When the diagnosis is in doubt, the *trend* of the basal metabolism should be obtained by repeated tests. This should be repeated after the administration of iodine. If the second series of readings is lower than the first, a condition of hyperthyroidism may be assumed to exist. The response to iodine is definite, delicate and exact; but we should not be in haste to base a positive diagnosis upon one such test. Several should be made.

Constitution and the Control of Disease

By Millard Smith, M.D., Boston, Mass.

It is not bacteria, but constitutional reaction, which determines the character of disease. We must study and correlate the *phenomena* of constitution and try to find out its *nature*.

Epinephrin stimulates the sympathetic nervous system, and histamin the parasympathetic. There are two types of diseases, related to two constitutional patterns: The *catabolic-sympathicotonic* and the *anabolic-vagotonic*, and the prevalence of these types of disease varies in different localities. Moreover, these two types of disease cannot exist simultaneously in the same body.

The catabolic-sympathicotonic patient is asthenic and underweight. His destructive metabolism is active; he is subject to sympathetic stimulation and is not highly reactive. He rarely suffers from acute infections, but frequently develops septicopyemia.

In such patients one frequently sees *atrophic arthritis* (and neurocirculatory asthenia is part of the picture), secondary and tertiary syphilis and *advanced* tuberculosis. Atony of the bowels and tachycardia are common.

The anabolic-vagotonic patient stores up energy and releases it in explosions, producing spastic colon, slow pulse and other signs of

vagus stimulation. He gains weight easily and expends energy excessively, so that he cannot readily relax and sleep. He is susceptible to acute infections.

In such patients one encounters *asthma* and other forms of *allergy*; dermatographia; *exudative* tuberculosis; primary syphilis; gastric ulcer; migraine; diabetes; and cancer. Worry, overwork, strain, constipation, lack of relaxation and rest, etc., tend to produce these conditions; and periodic physical examinations, with intelligent treatment, should prevent most of them.

Treatment requires the changing of the *whole individual*, not merely the amelioration of certain symptoms. The water-balance is an important factor. Specific and non-specific foreign proteins, injected *intravenously* at frequent intervals and over a considerable time, will clear up many anabolic-vagotonic symptoms. All diseases of both of these types tend to ameliorate spontaneously.

Effects of Vitamins and Inorganic Elements on Growth and Resistance

By Alan Brown, M.D.,
Toronto, Ont., Can.

The ordinary diet supplies a sufficient amount of most inorganic elements and vitamins, but not of all. Calcium, iron and iodine must not be left to chance. The calcium content of the average diet is 0.3 Gm., while the requirement is 1 Gm. per day (add 24 ounces of milk, for a child of ten years). Inorganic iron and copper are needed for hemoglobin regeneration.

A reduction below the optimum amount of *any* vitamin, except vitamin E, results in loss of weight. A deficiency of the vitamin-B complex and vitamin D lowers resistance to infection. Casein is a better protein than wheat gluten to increase resistance.

Vitamin D is distinctly helpful in preventing dental caries; but the patient must also receive sufficient calcium and phosphorus. Ordinary foods do not contain enough vitamin D, especially in the case of children, and special means must be adopted to furnish it.

Common Colds

By W. Blair Stewart, M.D., F.A.C.P.,
Atlantic City, N. J.

In giving *vaccines* (especially of the autogenous type) for the prophylaxis or treatment of common colds, increase the doses very slowly and carefully, to avoid hypersensitiveness and severe reaction.

If there is even a *suspicion* of diphtheria, give antitoxin *at once* and take a culture afterward.

If there are cases of anterior poliomyelitis in the neighborhood, keep that disease in mind and watch for symptoms, such as stiffness of the neck muscles. If the case is definitely suspicious, do a spinal puncture and watch the pressure and cell count. If the diagnosis is made, give convalescent serum.

If a common or influenzal cold does not clear up promptly, and there is no pneumonia, pleurisy or other respiratory complication, look for *acute nephritis*.

The treatment of a common cold recommended by Dochez is: "Go to bed; keep quiet, with a light, nourishing diet and plenty of fresh air; and wait for it to get well."

Chronic Arthritides

By W. Paul Holbrook, M.D., F.A.C.P.,
Tucson, Ariz.

Atrophic arthritis is sometimes called "chronic infectious arthritis"; but many cases show no signs of infection. The blood sedimentation rate is, however, always rapid, and if it becomes slower, the prognosis is good. We must be careful about the "relentless removal" of suspected foci. This should be done only when the patient is improving on other treatment. We must *prepare* the patient for the removal of infectious foci.

Spondylitis is especially a disease of young men (usually begins at about 20 years) who are *sheltered from trauma*. It begins with ankylosis of the sacroiliac joints. The back becomes stiff throughout; the muscles along the spine, the glutei and adductors of the thighs are hard, so that the patients cannot twist or bend their bodies. The x-rays show no bony lesions, and the patients' lives are not materially shortened by the disease, though they are sterile, much underweight and very asthenic. There appears to be an endocrine factor in the etiology.

Severe deformities can be prevented by religiously-carried-out postural exercises, by sleeping flat on a hard bed, by expanding the chest frequently, etc.

"Arthritis deformans" rests on a psychic basis and can almost always be traced to an emotional trauma.

Sinusitis and Asthma

By A. T. Henderson, M.D., F.A.C.P.,
Montreal, Can.

Severe asthmatic attacks and status asthmaticus, not yielding to epinephrin or morphine, can sometimes be relieved by *avertin* anesthesia.

It is not uncommon to see cases of asthma based upon disease of the maxillary antrums, in which no allergic skin tests are present.

One case of severe and typical sensitiveness to house dust was much improved by deep x-ray treatments to the chest.

A case of chronic urticaria, associated with menorrhagia, was relieved by Collip's anterior-pituitary-like placental hormone. Another case of premenstrual urticaria was relieved by autohemotherapy.

Hormones in Menstrual Disorders

By A. D. Campbell, M.D.,
Montreal, Can.

The anterior pituitary controls the hormones of the ovary, corpus luteum, thyroid, etc., so that the pituitary plays a part in amenorrhea. Emenin will not restore menstruation after it has ceased for eighteen months. The pituitary is probably defective, rather than merely deficient. A hormone has been obtained from the placenta which

acts like that from the anterior pituitary ("A.P. L." — anterior-pituitary-like).

In seventy percent of cases of amenorrhea there is a history of infection.

Dysmenorrhea does not always mean pain. The symptoms may be in the gastrointestinal tract.

Pain coming on after menstruation has started (*menorrhalgia*) is due to some pelvic disorder. Accurate diagnosis is necessary in the management of all menstrual irregularities, to rule out organic diseases.

Treatment of Tuberculosis

By Charles A. Cocke, M.D., F.A.C.P., Asheville, N. C.

In the treatment of any chronic disease, the prognosis depends upon the patient's ability and willingness to carry the treatment through, at any cost in time or in changing life habits.

The early symptoms of tuberculosis are not enough to determine the prognosis. Apparently similar cases are frequently not so. The outcome depends more upon the host than upon the invader. Management must be individualized and too much credit must not be given to any special line of treatment. *Rest* is the main standby, especially in the exudative (allergic) cases or stages.

Care without climate is better than climate without care. It is more important what a patient does than where he does it.

Pneumothorax is the most important advance in the treatment of tuberculosis that has been made in the past twenty-five years, and is being used earlier and oftener; but it is not a panacea nor a substitute for more conservative measures. If the patient is seen when the diagnosis is first made, it is better to watch the effect of rest in bed, in a sanatorium, for a month or more. Collapse therapy gives the patient an exaggerated idea of the efficiency of the treatment, so that he neglects other measures and does too much. Also, he becomes discouraged if results are not brilliant. Advanced age is usually a contraindication for collapse therapy.

Factors in Circulatory Failure

By Jonathan C. Meakins, M.D., F.A.C.P., Montreal, Can.

The dangers of the cardiac patient in pregnancy are progressive congestive failure and edema of the lungs. Mitral insufficiency causes little trouble, if *the myocardium is good*. Mitral stenosis cuts down the volume of the blood flow and increases the pressure in the auricle and the pulmonary circulation. The pregnant woman must meet a demand for a 35 to 50 percent increase in the flow of blood. Hypertension before pregnancy does not predispose to eclampsia.

The factors in circulatory failure are: (1) The blood flow per minute; (2) the degree of tissue anoxemia (acidosis); (3) the venous pressure; and (4) the condition of the respiratory apparatus (the chest muscles and diaphragm normally help the heart with its pumping).

In congestive failure, the chest excursion and vital capacity are much reduced, particularly the emptying of the lungs at expiration. The intrapleural pressure may even be *positive* — a state of affairs not found in other conditions. Venesection may be beneficial in these cases.

Radiothermy in Neurosyphilis

By Walter M. Simpson, M.D., F.A.C.P., Dayton, O.

Radiothermy is the name given to treatments with ultra-high-frequency fields — 10,000,000 cycles per second; 30-meter waves.

In giving these treatments, if sweat collects on the skin the current will arc and burn. An air-conditioned cabinet, with moving air at 150° to 200° F., keeps the skin dry and permits the temperature to be reduced to normal gradually.

The contraindications for this form of treatment are: Advanced age; myocardial damage; advanced tuberculosis; and acute and rapidly advancing neurosyphilis.

Immediately after such a treatment one should inject four or five liters of 0.4 percent sodium chloride solution intravenously, to replace the salt lost. This relieves the sense of fatigue.

The patient's temperature should be raised to 104° F., and ten treatments should be given. Arsphenamines may be given before, after and even between the treatments. This cannot be done when fever is produced by malaria.

The clinical and serologic results of this treatment are excellent in paresis, taboparesis and tabes. In the two latter, pain and ataxia are abolished and the psychic symptoms are much improved. Most paretics are soon able to work or to adjust themselves to their environment.

This treatment should be used as soon as a diagnosis of syphilis is made, as a prophylactic.

Psychic Factors in Tuberculosis

By Lawrason Brown, M.D., F.A.C.P., Saranac Lake, N. Y.

There is no *specific* connection between tuberculosis and the psychoses. Any debilitating or shock-producing disease may bring out hidden psychic instability; and psychic traumas or fears, by lowering resistance, make a person more susceptible to *any* disease.

All tuberculous patients should be classified psychically, as well as physically. Phobias and fears are rather common (in 30 percent of sanatorium patients) and should be promptly treated by psychotherapy. Suggestion and reassurance are needed at some time in *all* cases. We must mix "faith cures" with physical treatment. Harmless drugs and placebos are often useful; and it is well to stress the new drugs or procedures used, for psychic effects. Malingering is no more common in tuberculosis than in other chronic diseases.

The reactions of a tuberculous patient are much like those of anyone else, and the personality of the phthisiologist is important. Turmoil at home, after leaving a sanatorium, may undo much of the good accomplished.

Psychic injuries may change a mild case of tuberculosis into an active and serious one. The way in which a patient reacts to the information that he has tuberculosis (and he should be told as soon as the fact is known) may indicate the

line of treatment. We must study the patient's environment and circumstances, in order to determine whether he should be treated at home or in a sanatorium, and whether or not he should have a change of climate. We must give serious thought to the mind of the host, as well as to the tubercle bacillus.

Insanity Equivalents

By Walter C. Alvarez, M.D., F.A.C.P., Rochester, Minn.

Many well developed psychoses are not recognized by clinicians. Psychiatric patients do not talk about psychic symptoms, but discover physical maladies to discuss. If a person who has been a reader loses interest in it, something is seriously wrong.

There are *insanity equivalents* which are not clear psychoses; pseudo-ulcer of the stomach and stormy menstruation are common ones. The symptoms are vague and no physical basis can be found for them.

It is important to ask the patient how long it is since he has worked, and, if he has not been working for a long time, why not? He will admit physical diseases, but is is well to tell him that there is no physical disease, and set about making a psychic readjustment at once. If the patient has had several operations, *this must stop*.

Mild cerebral arteriosclerosis or thrombosis is often called "acute indigestion." There may be sudden character changes, with mild abdominal symptoms.

What one eats is less important than how it is eaten. One should never eat when tired.

If a patient does not improve, do not do more laboratory work, but *talk* to him and get a *real* history.

Simplified Spinal Anesthesia

By F. D. La Rochelle, M.D., Springfield, Mass.

SPINAL anesthesia was discovered by a neuropathologist, Corning, in New York, in 1885, and Quincke demonstrated the ease with which the subarachnoid space can be entered in man; but it was only in 1898 that Bier established conclusively its clinical application. The technic was fully developed by Tuffier, in 1900, and in the course of a few months it obtained world-wide recognition.

Since that time an enormous literature, from all over the world, has tended to make the procedure more and more complicated. This study, based on 800 consecutive spinal anesthesias on private patients (see Table I), has had the opposite purpose in mind, namely, utmost simplification of the method. It is only fair to say that this series does not include early cases, treated before I had become thoroughly familiar with the technic. I am convinced that sufficient simplicity has now been attained and that a considerable percentage of perfect results have been achieved, so that it now appears that, eventually, the percentage of success will be raised to nearly 100.

Spinal anesthesia has been reduced to a mathematical equation. We have the patient and the operation, on one side, with the resulting anesthesia on the other. If our factors are properly calculated, perfect anesthesia for one hour must result. Spinal anesthesia, like the trajectory of a cannon ball, can be predicted and, if we do not hit the target, it is only because the calculation was wrong; the method itself seems to suffer no exception.

Spinal anesthesia is peculiar, in that the calculation is entirely in the hands of the surgeon, presumably the most experienced person in the operating room, while general anesthesia oftentimes leaves the steering to be done by the least experienced, without adequate theoretic knowledge, and the whole process is a succession of judgments during the entire course of the operation. In spinal anesthesia the calculation is done once and for all and, assuming that the calculation is correct (which experience shows is entirely feasible in a large percentage of cases), successful anesthesia results, so that sensation can be left out of the picture and the operation done as if pain were not a factor to be reckoned with.

This technic differs from others in that it is aimed to obtain one-half of the desired anesthesia with narcotics and hypnotics, and only one-half by root anesthesia. In this way, both narcotic and anesthesia agent can be used in concentrations well below the danger point. It has the further advantage that the mental state of the patient is so dulled that it needs little attention and, in case of necessity, one can readily switch to another form of anesthesia or, if it becomes necessary to continue the operation beyond an hour, a little ether suffices to keep the patient free from pain. The intensity of the narcotization is tested each time. When properly done, the patient complains of no pain on introducing the needle into the spinal canal, and this gives a clue as to how much of the anesthetic agent to inject.

Drugs Used

The formula used in every instance was Tuffier's as follows:

Stovaine	10 centigrams
Sodium Chloride	10 "
Distilled water to make	1 cc.

Ampules contain 0.75 cc., or 12 minims.

In a 150-pound man, if the needle causes no pain and anesthesia is desired for one hour, 8 minims are injected; if the patient complains a little, one or two minims more may be injected; or, if he seems very dull, a minim less. If the operation is to last less than one hour, a smaller quantity of stovaine can be injected.

For a narcotic we originally used ¼ gr. (16 mgm.) of morphine sulphate as a standard, but later we used hyoscine, morphine, cactoid ("H. M.C.") tablets, containing only ⅛ gr. (8

TABLE I

OPERATION	NUMBER
Accouchment Forcé	1
Amputation of Foot	1
Appendectomy	201
Benign Tumor of Rectum	1
Cesarean Section	10
Cellulitis of Leg	2
Cholecystectomy	54
Cholectstostomy	8
Colostomy	1
Compound Fracture of Tibia	2
Curettage	8
Cystostomy	3
Displacement of Uterus	79
Epididymectomy	2
Gastroenterostomy	38
Hemorrhoids	53
Herniorrhaphy	101
Hydrocele	7
Hysterectomy	119
Laparotomy	31
Nephrotomy	6
Orchidectomy	2
Phlebectomy of Leg	2
Prostatectomy	22
Salpingectomy	36
Sequestrotomy	2
Torsion of Great Omentum	1
Tumor of Thigh (Sarcoma)	1
Urethrotomy	6
Total Number of Operations	800

Female — 533; Male — 267.

Minimum age, 10 Years; Maximum age, 83 Years; Average age, 36½ Years.

Total Death Rate (30/800), 3.75 percent: Males (14), average age, 50 Years; Females (16), average age, 45½ Years.

mgm.) of morphine. With the advent of pentobarbital sodium (Nembutal), we used this to obtain one-half or all of the narcotization.

On one occasion I inadvertently injected ¼ gr. (16 mgm.) of morphine intravenously, and the similarity of the resulting phenomena to those of spinal anesthesia made me think that the hypotension, perspiration and nausea and vomiting were, at least in part, due to the morphine. Since using small doses of morphine with Nembutal, or Nembutal alone, there has been a striking change in the behavior of patients. The hypotension, palor, perspiration and nausea have been less marked. In fact, when pentobarbital sodium is used alone, with a small dose of stovaine, the patient does not behave differently than with local anesthesia.

The routine procedure for a 150 pound patient is to give 3 grains (0.2 Gm.) of pentobarbital sodium (Nembutal) at night, and 3 grains one hour before the operation. If necessary, one hyoscine, morphine, cactoid tablet (⅓ gr. morphine) is given in addition to this.

INDICATIONS

We use spinal anesthesia as a routine for operations below the diaphragm, and the indication may be stated as follows; Spinal anesthesia is indicated in any major operation below the diaphragm that is intended to last no more than one hour, when extreme relaxation is desired and when the patient is to stay in bed at least one week after operation. We have used it in children, but now believe other methods are better. In our series, spinal anesthesia was used for curettage of the uterus and for treating hemorrhoids, but we no longer use it for these operations.

TECHNIC

Instruments: I believe that a relatively large needle (19 gage, 3½ inches long) and a small syringe are better than a fine needle and a large

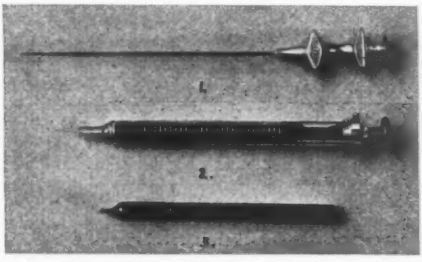

Fig. 1.—(1) Bier needle; (2) Tubereulin syringe; (3) Ampule of stovain, Tuffier formula.

syringe. The problem is to introduce the point of the needle into the subarachnoid space and keep it there. If a large syringe is used, the leverage is excessive and, with a fine needle, the point might enter the cord or dura and damage be done or the solution lost before the mishap was noticed. In any case, once a syringe and needle have been selected, no change should be made, because skill acquired in handling increases rapidly with experience and, after a little practice, the needle can usually be placed directly in the subarachnoid space at the first attempt; occasionally this is more difficult.

I always start between the first and second lumbar vertebrae, with the patient in the sitting position, and go higher if any difficulty in entering the canal is experienced or if blood is obtained. I should not hesitate to go as high as the tenth thoracic, but in that case I would use a smaller dose of stovaine.

It is my custom to make the injection after scrubbing my hands, and I never use gloves, as these interfere with the sense of touch. The field is always prepared by sponging with 95-percent alcohol, and no dressing is applied. We have never had an infection of the wound nor of the subarachnoid space with this technic and we consider elaborate procedures entirely unnecessary and likely to interfere with the desired result; namely, introducing a small amount of solution into the subarachnoid space, with the utmost dispatch and the least possible likelihood of complications.

Once the solution has entered the subarachnoid space, the patient's head is lowered slightly (about 15°) and, if the Trendelenberg position is desired, it may be lowered still more. For upper abdominal operations the chest and head may be horizontal and the lower extremities raised.

*Barbotage** is always done. The operator is then aware of the fact that the point of the needle is in the right position and the diffusion of the solution is more rapid. This procedure also lessens the effect of gravity on the solution and prevents possible translatory movements in the cerebrospinal fluid, very much like a bubble in water, before complete mixture of the two fluids takes place.

Accidents During Anesthesia

Failure to obtain anesthesia: In this series of 800 cases, there were no failures, but that does not mean that the method is infallible. In some instances considerable difficulty was experienced in entering the spinal canal, and there is no doubt that some time we will fail, but in that case we can always turn to ether.

Nausea and vomiting have been reduced by using small doses of morphine and stovaine. It still occasionally occurs, but is only an inconvenience.

Hypotension: Since using small doses of morphine, with Nembutal, hypotension has been markedly decreased and usually requires no special treatment beyond lowering the head.

My own conception of an operation is based on a mathematical equation, with the patient, the operation and the result desired as terms; the actual time spent in doing the operation corresponds to solving the equation and should be completely alien to the statement of the problem or the planning of the operation. There is no more sense in making an operating room a pharmacologic laboratory or a machine shop than in the proverbial plumber returning for his tools. By careful planning, it should be possible to spend an hour doing an operation without the necessity of watching the blood pressure, etc., beyond the usual routine. If stimulants, restoratives, etc., are needed during the operation, the problem was not properly thought out. For instance, if one wants a patient digitalized, this should be done before coming to the operating room. Similarly with stimulants, if thought necessary they should be given before beginning the operation.

Relaxation of the sphincter ani occasionally takes place, especially if the operation is done before an enema has been completely evacuated. Solid contents are rarely expelled during the operation.

Postoperative Accidents

Headache: In spite of the closest observation over a period of years, I have not decided what causes headache. Certainly leakage of spinal fluid is not entirely responsible. I have had many occasions for doing spinal punctures for other purposes, and I have never encountered spinal anesthesia headache without spinal anesthesia. I am convinced that it is, at least partly, due to an excessive dose of the agent, and I also believe that Nembutal is effective, in a measure, in preventing headache, since, while it was the rule before, now it is only the exception and, when headache does occur, it is mild and usually accompanied by soreness and stiffness of the neck.

For genuine stovaine anesthesia headache there is no treatment but palliative measures. Care should always be taken to make only one puncture in the dura. This is accomplished by piercing the interspinous ligament and then removing the stylet, so that, when the dura is punctured, it is immediately recognized. The needle should not be made to enter the dura until it is certain that the direction is correct.

Meningitis and wound infection did not occur in this series.

Postoperative vomiting is rare and is of no special significance.

Retention of urine is no more frequent than after other anesthetics.

Postoperative paralysis, trophic changes, psychic disturbances, pulmonary complications and disturbances of parenchymatous organs did not occur in this series.

Mortality: There were no deaths in the series directly due to spinal anesthesia. This, of course, is due to the small number of cases as, in a procedure like spinal anesthesia, something is bound to go wrong sometimes, but certainly the danger is not excessive. My opinion is that the death rate here is lower than it would have been, with all other factors the same, if any other method of anesthesia had been used.

A feature not to be overlooked is the economy of spinal anesthesia, in time and money. It takes only a moment to make the injection, the patient is ready at once and the solution, for one hour of anesthesia, costs only a few cents.

89 Belmont Ave.

*Withrawal of spinal fluid and dissolving the drug in it before reinjection, in spinal anesthesia — Ed.

MEDICAL ERRORS

Why do doctors so often make mistakes? Because they are not sufficiently individual in their diagnoses or their treatment. They class a sick man under some department of their nosology, whereas every invalid is really a special case—a unique example.

How is it possible that so coarse a method of sifting should produce judicious therapeutics? Every illness is a factor, simple or complex, which is multiplied by a second factor, invariably complex—the individual, that is to say, who is suffering from it—so that the result is a special problem, demanding a special solution, the more so the greater the remoteness of the patient from childhood or from country life.—Journal Intime of Henri-Frederic Amiel, Scheveningen, Aug. 22, 1873.

Varicose Ulcers

Mechanical Aspects in Treatment

By Thornton E. Vail, M.D., Thompsonville, Conn.

VARICOSE ulcers of the legs are probably one of the most common afflictions of humanity and are certainly a cause of a vast amount of real agony. Adults of both sexes are prone to their development, but they are much more common in women, pregnancy and sedentary habits being predisposing causes. Such an ulcer is a secondary manifestation of a varicose vein or varix, due to increased tension within the vein, caused by pressure from without, obstruction or occlusion of the deeper veins, or by habitual overexertion The ulcers are characterized as *sluggish wounds without a tendency to heal.*

As the cause of varicose ulcers is almost wholly mechanical, we must look to mechanical means instead of the usual therapeutic methods previously used. Lotions, powders, ointments, x-rays, artificial heliotherapy, hot air and many other treatments have been recommended and used, but are of little or no value without added mechanical means of reducing the swelling, keeping it reduced and thus improving the venous circulation and overcoming the stagnation of blood in the affected part.

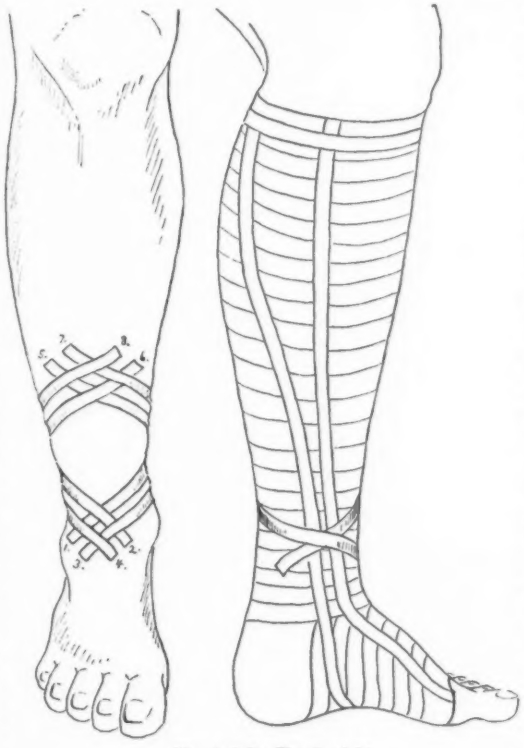

Fig. 1, left; Fig. 2, right.

The present injection treatment of varicose veins is a most valuable step forward and is a definite aid in healing ulcers, but is not always prompt and positive in the end-result. It should be used with or following the treatment I am about to describe, which is as near positive as any treatment or surgical procedure in medicine or surgery. If universally used, we will no longer hear of patients who have suffered with varicose ulcers for thirty years or more. It will be a real pleasure to be consulted by a patient with varicose ulcers, knowing that we can cure them definitely in a few weeks and completely relieve their suffering in a day or so.

We must strive to gain the confidence of these poor sufferers, for the medical man has miserably failed in bringing them the relief they have a right to expect. They have, as a rule, tried physician after physician and treatment after treatment for years without benefit, until they have finally accepted their condition as incurable. It is most difficult to convince them that anything can be done and persuade them to begin treatment. When this is accomplished it is of utmost importance to explain that the first twenty-four hours or so will be attended by considerable suffering, which they must bear, and under no circumstances cut off or alter the dressings. Elevation of the part will give great relief and an opiate or analgesic the first night is certainly justifiable.

The only physicians meeting with any degree of success in these cases are those using positive mechanical means to reduce swelling, edema and venous stagnation and to keep it reduced. Even a slight swelling is a danger signal and will soon be followed by pain and a breaking down of the tissues. Unna's paste boot has been successfully used, and all styles and types of bandages have given more or less relief, if properly applied, due to the mechanical pressure exerted, but all other treatments are practically useless without proper constriction of the parts.

In many cases the distended veins have lost their elasticity and can not return to normal. No drug or treatment can restore their parietes. The valves of the veins have been so damaged that the blood backs up and even circulates in the opposite direction from that intended. When this condition exists it must be remedied by removal of the vein, or a part of it at least, high up, obliteration as is accomplished by chemical reaction, in injection treatments, or by mechanical pressure from without. It is often necessary to combine all of these measures in a severe case. The ulcers and edema should be first controlled and the confidence of the patient established. Then a properly-fitting, heavy elastic stocking should be worn and followed up by the injection treatment.

Technic

The first dressing should be made in the morning, before the patient rises. At that time the swelling is least and the adhesive strips can be applied with the least pain. Use hydrogen peroxide to cleanse the surface of the ulcer, and dry by patting with sterile gauze. Dust the ulcerated areas with thymol iodide powder and apply the strips of adhesive directly over the ulcers.

The adhesive plaster strips are cut one-half inch wide and long enough to overlap about two inches. (Fig. 1). These are spaced about an eighth of an inch apart, to allow for the discharge from the ulcer. The angle at which the strips should be applied depends upon the degree of enlargement of the calf and the foot, therefore they must be placed differently, extending up and down from the ankle. In strapping upward, the strip crosses itself at the highest point, and in working down from the ankle at the lowest point, thus making even pressure, which will not cut in as the leg swells. The strapping must extend well above and below the inflamed area. Frequently a leg should be strapped entirely, from the foot to the knee. The strips must be applied with firmness, even though the patient complains considerably.

The leg should then be bandaged with a two-inch by ten-yard gauze bandage, starting just below the knee and fastening the end to the skin by a plaster about two inches long by one inch wide, using firm pressure, reversing as necessary and ending about the arch of the foot. This will be found to hold better than the usual spiral-reverse bandage from the foot working up. It may then be even better held in place by four half-inch strips, from the knee to the foot, and strips below the knee and about the ankle. (Fig. 2).

In a day or two the patient ceases to suffer pain, is not confined to bed and should continue his daily occupation during treatment. The bandage should be changed only when considerably soiled from discharge, and the plasters when they become loose. The average days of dressing are the third, sixth, tenth, seventeenth and weekly thereafter. Ulcers are healed in from three to six weeks and then an elastic stocking must be worn and, later, the injection treatment of the veins applied.

This treatment will appeal to the medical man, as the necessary dressings are always at hand; there is no elaborate preparation or mess; and very little practice is necessary to become skilled in its application. Small ulcers about the ankle and foot will be found the most difficult to dress and stubborn to cure.

Having treated and cured hundreds of cases, some of thirty years' standing, during the past twenty years, with but one failure, I am positive that the results can be depended upon.

AN OUNCE OF CONFIDENCE

If medicine were an exact science I would say: "Yes, the family doctor has outlived his generation." But it is not. There is something to mental healing, and the ounce of confidence which he instils often proves to be a pound of cure.—William Henry Welch, *America's Dean of Medicine.*

WORK FOR YOUR PROFESSION

If you work in a profession, in heaven's name work for it. If you live by a profession, live for it. Help advance your co-worker. Respect the great power that protects you, that surrounds you with the advantages of organization, and that makes it possible for you to achieve results. Speak well for it. Stand for it. Stand for its professional supremacy. If you must obstruct or decry those who strive to help, why—quit the profession. But as long as you are a part of a profession, do not belittle it. If you do, you are loosening the tendrils that hold you to it, and with the first high wind that comes along, you will be uprooted and blown away and probably you will never know why.—Charles E. Dawes.

MEDICINE AND PHARMACY

I am of the opinion that never before in the history of medicine and pharmacy in the United States have there been better conditions for close cooperation than there are today. Both medicine and pharmacy are rapidly advancing, both are fundamentally sound and each deserves the confidence of the other. In fact, a close cooperation of the two professions will be mutually beneficial and will contribute to the public health of the nation.—C. B. Jordan, *Dean, School of Pharmacy, Purdue Univ., in* Med. Economics.

PHYSICAL THERAPY AND RADIOLOGY

The Technician Consultant

FROM time to time there have come to our desk advertisements of establishments, more or less well organized and equipped, which offer to the physician a special service for his patients, including hot and cold baths of various descriptions, massage, phototherapy, colonic irrigations, reducing exercises, etc.

Although these institutions are entirely commercially conducted and under the control of non-medical persons, such as bath-house keepers, ex-pugilists, physical therapy technicians, etc., it is astonishing to note that they feel perfectly confident of being able to give professional service and to request physicians to send patients to them for these highly specialized physicotherapeutic treatments. Indeed, one or two establishments submit a list of names of physicians who do so patronize them.

A logical and analogous step would be for registered nurses and other non-medical persons to run private hospitals and convalescent homes, to which physicians might be solicited to send their patients.

Thus, little by little, the physician lets his functions dwindle to the status of a diagnostician. This not only reduces his income, but also educates the public in the belief that non-medical persons are capable of administering treatments.

We must thank Osler for the inception of this idea, that therapeutics is a quantity of such uncertain value that, as Mr. Dooley once said, "It does not matter who you call in, in a case of sickness, so long as you have a good nurse." The patient comes for *treatment and relief*. He is only indirectly interested in the matter and manner of making the diagnosis. He *wants something done*.

The physician certainly knows more than the nurse and should know more than the physical therapy technician. Moreover, he must, being responsible for his patient's welfare, keep a constant supervision over him.

The practice of medicine is undergoing stresses and strains which are certain to modify practice in the coming years. The group clinic and the hospital, as well as the newer schemes for group insurance, open the way to formation of a privileged class of physicians, who will gain immeasurable advantages through the ability to enjoy ethical advertising. The larger bulk of the profession will certainly suffer a reduction, to a point of bare living or extinction, unless they can give the patient treatment as well as a diagnosis.

If consultation is needed, an ethical brother practitioner should be called in, but treatments should remain in the control of the physician in charge of the case. One will be less likely to lose a patient to an ethical consultant than to a lay-controlled institute, run on selfish and commercial lines. Moreover, one subjects one's patient to many dangers by relinquishing his care into the hands of technicians or, worse still, to bathhouse keepers.

A postgraduate course in the practice of physical medicine will more than restore one's confidence in oneself as a physician: and it will help to restore the confidence of the patient in the medical profession.

F. T. W.

Radium in Medical Diseases

By F. Howard Humphris, M.D. (Brux), F.R.C.P. (Edin.), D.M.R. & E. (Camb.), M.R.C.S.(Eng.), Etc., London, England

THERE is a large body of medical men who have no idea of and far less faith in the curative uses of radium in medicine, as distinct from its valuable destructive power in surgery. It is to these physicians that I address myself, and place before them a few elementary aspects of the case for the use of radium in medicine. This essay is but a brief word as to the history of radium therapy, with a plea for fair play and its careful consideration, the rationale of it, the diseases in which it has been found useful and indications for treatment by it, the dosage in which it is administered, the methods by which it is used, and the dangers of and contra-indications for its use.

In order to clear up some of the fog which appears to surround this subject in the minds of many, I am going to quote from the "Proceedings" of the American Therapeutical Society, held in Baltimore in May 1932. Dr. Jacob Gutman, director of the Brooklyn Diagnostic Institute, said:

"The present general condemnation of radium is due to lack of real knowledge concerning its properties and potencies and to a failure to distinguish between radium emanation, the important constituent of radio-active waters useful in medical cases, and radium salts in solution. A diligent search of medical literature for casualties definitely connected with the drinking of radio-active waters, either of springs or of water charged with emanation only, fails to show any casualties."

For the purpose of scientific investigation and to aid in the formation of sound judgment, I do not find it necessary to draw a highly-colored picture, nor to describe in intemperate language the facts of the poisoning cases by radium in the United States. Shortly, and shorn of lurid detail, it runs thus:

Some 50 girls were employed in painting luminous watch dials with soluble radium. They were in the habit of pointing the paint brushes with their tongues; hence they absorbed the soluble radium, developed carcinoma and some died and others became very ill, and may possibly die.

The second case was that of a gentleman who drank, thrice daily for a considerable period, a solution of soluble radium and mesothorium, in an endeavor to improve his golf. He, too, developed carcinoma and died.

Such is a plain statement of fact. It has nothing to do with the case of mild radium therapy. These are examples of taking radium in a crude form and a very large overdose. The same effect of an overdose of arsenic, strychnine or phosphorous will, as we all know, produce death; but the taking of radium as these girls did, or the gentleman from Pittsburg, is totally distinct and apart from the administration of radium as we are accustomed to give it in mild radium therapy.

Mild Radium Therapy

The subject in hand is commonly known as micro-curie therapy, or mild radium therapy. Its distinguishing feature is that it is not in any degree dangerous.

To grasp intelligently what it means and what it does, we must separate it in our minds, absolutely and entirely, from deep radium therapy and the treatment of growths and morbid conditions by prolonged exposures to radium.

A precise or logical definition of mild radium therapy presents some difficulty, so a simple preliminary explanation of the term must take its place. Mild radium therapy consists of:

1.—The administration, internally, of radium salts, in doses so minute that they might almost be called homeopathic. These are given in the form of pills or injections.

2.—The administration, internally, of radium emanations, in amounts corresponding to quantities found in natural waters. These are absorbed by the digestive or respiratory organs.

3.—The application, externally, of powdered radium-containing ore, by means of compresses or packs.

4.—In gynecologic and genitourinary practice, mild radium therapy also is employed, use being made of radium by mixing it in the form of vaginal pessaries and bougies, each of which contains the equivalent of one microgram of radium chloride. They should be applied daily or on alternate days and their use may extend over a long period.

Mild radium therapy may, therefore, be said to be an irradiation with such small — even minute or homeopathic — doses as have, for many years, proved of therapeutic value. Up to the present time this method is comparatively unknown in England; but on the Continent of Europe, particularly in Germany and Austria, and in the U.S.A., it has been employed for several years with considerable success. In the past, it was used accidently and empirically; in the present, its value has been scientifically proved.

Indications

Among the painful conditions in which this treatment stands preeminent, are those which are classed as gouty and rheumatic affections, in which are included neuritis, and even trigeminal neuralgia, one of the most intractable forms, would appear to be susceptible to mild radium therapy.

My own experience dates from some time before the year 1913, and I have pads in use today, which I had then, and they bear that date. It was in cases of chronic arthritis and neuralgias that I reaped a certain measure of success. I did not know then, as I now realize, that success comes, not by the use of pads alone, but by the use of the whole armory of radio-

active weapons now at our disposal — swallowing it, injecting it, inhaling it, and so forth.

Speaking broadly, relief from pain is the most evident effect of mild radium therapy. But it is not the only one, and there are many other ways in which the utility of this treatment manifests itself.

Another result from the use of this treatment is the reducing of a pathologic high blood pressure. Dr. Mutch, of Guy's Hospital, London, in a very valuable article, published in the *Lancet*, Nov. 7, 1931, showed that small doses of radium have a favorable effect on high blood pressure, where uncomplicated by kidney trouble. In this series of cases, pressure reduction varied from 12 to 54 mm. of Hg., the average fall being 35 mm. Twenty years before this date, Armstrong recorded a marked fall in blood pressure in a chronic nephritic, while taking a course of radium-emanation water.

The rationale of mild radium therapy or the way in which it works is not yet fully defined, even by those who offer proof of its efficacy. It is, however, based on the fact that small quantities of radium activity stimulate the vitality of the tissues, and, because of this biologic effect, promote all metabolism, which results in a pronounced analgesic action.

Vynne Borland, in an able article on mild radium therapy,[1] writes (quoting Van Norden and Falka) that, in contradistinction to all forms of electrotherapy, we possess, in radio-active substances, a means of carrying electric energy into the depths of the body and there subjecting the juices, protoplasm and nuclei of the cells to an immediate bombardment by explosions of electric atoms. We may, therefore, designate the internal treatment with radio-active waters as *internal electrotherapy*.

The physiologic action of mild radium therapy is a stimulation of cell activity, arousing all secretory and excretory organs and encouraging the more rapid excretions of toxic material. Abnormally high blood pressure is reduced, digestion is improved and general vitality stimulated. The effect on the nervous system is sedative and analgesic. Patients undergoing mild radium treatment feel fitter and look better and there is a general increase of functional efficiency. The patient is able to do more, whether it be work or play, and to do it better and enjoy doing it. In fact, the whole rationale of mild radium treatment is cell stimulation, and when radium is taken internally its effects are extended to the most remote parts of the body.

Radium Emanation

Chadwick defines a radio-active substance as one which possesses the property of emitting spontaneous radiations, capable of passing through sheets of metal and other substances opaque to light, and of imparting electric conductivity to the air.

Radium emanation is a gas, given off by the disintegration of the radium atom. It is not stable. The stability of a radio-active substance is measured according to its "half-decay" period; that is, the period during which the original activity has been reduced to half, as the result of the radio-active disintegration of the atom. The "half-life" or "half-value" period of emanation is 3.85 days. At the end of thirty days, less than one-half of one percent (0.45%) remains. It is for this reason that certain waters exhibit their maximum healing powers when taken at their source, and lose their efficiency when removed from it.

In order to make it possible to obtain, away from the source, the same benefits to be derived from the source, the authorities at the radium mines have devised a radium apparatus, by which an emanated water can be made at any distance from the source, equally active as that which nature provides. Briefly, the apparatus consists of a metal cylinder inclosing a bullet which contains the radium. This is surrounded by water, which, when left for 24 hours, can be drawn off and is then, in fact, emanation water. Its strength, and consequently its dosage, is measured in Mache units, which is a term also used for measuring the small amount of electricity in radio-active waters.

Radium emanation can be introduced into the human organism in several ways, the principal methods being by the digestive routes, or through the respiratory organs. In either case it is absorbed by the blood and, by it, is transported to all parts of the body.

Perhaps the oldest method of applying radium for medicinal purposes was by means of compresses or pads (the miracle-working leather bags of ancient days), which I have been using for over twenty years. They consist of dry compresses of radio-active substance, sewn in a bag of waterproof material which, in its turn, is contained in a loose, washable cover. They are applied to the affected area, kept in proper position with a bandage and left in position for several days.

In the *Lancet*[2] was described a thermoradio pad, which is a combination of radium emanation and equable heat, electrically produced. These pads are known as Q-ray compresses and have passed satisfactory tests by recognized authority. I have certainly obtained excellent results from these for many years past, whether by the heat or the radium it is difficult to say. It may be that this is another example of synergic action, or mutual intensification between the radium energy and the heat.

The chief indications for the use of mild radium therapy are as follows:

1.—For the relief of pain.
2.—In rheumatic and gouty affections.
3.—In certain forms of high blood pressure.
4.—In some dermatologic conditions.

There are no contra-indications, as far as I know, for the proper dosage.

Reaction is one of the most striking phenomena in mild radium therapy, especially in its internal application. The symptoms—pain, redness and swelling—may become intensified. The temperature may rise and there may be some general disturbance, such as depression,

1.—Borland, Vynne: Mild Radium Therapy. *Brit. J. Phys. Med.* 6: 226, Feb. 1932; quotation from Van Noorden and Falka, p. 227.

2.—A Thermo Radio Pad. *Lancet* (London) 1: 438, Feb. 22, 1930.

lassitude and either somnolence or insomnia. These symptoms of reaction vary greatly in form and degree. They may last a few hours, very rarely a few days, and subside without trouble. This reaction is by no means of general occurrence; but when it does occur indicates a great probability of success.

Dangers

With regard to the dangers, we must remember that there are a number of wellknown therapeutic agents which are beneficial up to a certain dose, and very harmful when administered in larger quantities. I think we may sum up all the dangers of mild radium therapy in one word, *overdose*, and when we give an overdose it ceases to be correct mild radium therapy.

The greatest danger of radium therapy comes from the many preparations sold by the quack vendor. Cancer and death have come to those unfortunate members of the public who prefer to believe all the claims of the quack advertisement, rather than to put their trust in the medical man whom their Government has licensed to take care of them. The administration of radium should be rightly restricted to the medical profession, and the dosage prescribed by medical men, and by medical men alone. Danger lies in any other policy.

The dose of radium, like that of all other therapeutic agents, is that which will produce the effect which is intended. The dosage laid down is but a guidance to point the way for the intelligent user thereof.

It has been proved by numerous experiments that small quantities of radium, such as are used in mild radium therapy, do not show any destructive tendencies, exerting only stimulating properties upon the cells which come within their range. Up to date there is no evidence that the small amounts of emanation, or radon, present in spas or in waters artificially activated, have ever produced any ill effects. And this is the evidence of Frederick B. Flinn, of the Institute of Public Health, Columbia University[3].

We shall learn more, as time goes on, of the rationale of radium in medicine, and with this knowledge find new channels for its activities. In the meantime, it behooves us to proceed with caution, but also with diligence; without hurry, but without ceasing; with close cooperation with the scientist, and obtain from him all the help we can. If we order ourselves in this manner, both we and our patients will reap the advantages of the use of radium or micro-curie therapy in medicine. If, however, we fail to avail ourselves of the tide — let slip the chance of taking it at the flood — and allow ourselves to be frightened by the alarmist or the pessimist, then not only will our patients suffer unnecessarily by reason of our negligence, but our descendants and the physicians who follow after will wonder how we came to miss so great an opportunity.

4, Great Stanhope St.,
Park Lane, W.1.

NOTES AND ABSTRACTS

Types of Arthritis Amenable to Diathermy of the Pelvic Organs

AS STATED by Dr. C. A. Robinson, in *Brit. J. Physics. Med.*, Feb., 1932, cases of arthritis coming to hospitals are of two types: (1) The inflammatory type, in which inflammation is the predominating characteristic and in which the inflammation is a reaction to a bacterial infection; (2) a type in which proliferation and degeneration quickly following on it, form the chief characters.

The focus of infection in the first of these types is usually the cervix in women, the prostate and vesicles in men. The proliferation and degeneration of the joint structures constituting the second type nearly always dates to about the menopause in women and to degeneration of the prostate in men. Both the latter are endocrine changes.

The truth of these propositions is supported by the frequency with which the clearing up of cervical infections by diathermy and ionization causes subsidence of the inflammation of the joints; also by the fact that in the type in which proliferation and degeneration are the main characteristics, relief of pain and subsidence of swelling follow diathermy applications to the ovaries and pelvic contents. The same applies to corresponding types of arthritis in men.

X-Ray Therapy in the Treatment of "Painful Heel"

GONORRHEAL periostitis, or, as it is commonly termed, gonorrheal spurs of the os calis, though not very frequent, is still very troublesome to both patient and physician.

In *J. Urol.*, July, 1932, Dr. F. Liberson, of the U. S. Marine Hosp., Stapleton, New York City, reports that, of 924 patients with gonorrheal infection, admitted to the hospital from 1925 to 1931, over 3 percent of the complicated cases were suffering from gonorrheal periostitis, with or without active infection in the genital tract.

Operative treatment for gonorrheal exostosis is not entirely satisfactory, on account of the prolonged preoperative and convalescent period and frequent recurrence.

3.—Flinn, F.B.: Dangers of Internal Radium Therapy. *Am. J. Phys. Therapy* 9: 65-70, June, 1932.

Local deep x-ray therapy, simultaneously with general measures to eradicate the source of gonorrheal infection, when present, yield a shorter average stay in the hospital and a more permanent result in a greater number of cases.

For early small spurs the treatment consists of 125 k.v.; 4 m.a.; 24-inch distance; 0.25 mm. of copper, 1 mm. of aluminum and 2 cm. of wood as filters; one-half hour every other day, alternating the internal lateral with the external lateral and with the plantar surface of the os calcis, continued for 6 weeks, each surface getting one treatment a week.

For older and larger spurs the treatment is 155 k.v.; 4 m.a.; 24-inch distance; 0.5 mm. of copper, 1 mm. of aluminum, 2 cm. of wood; one-half hour every other day, alternating the internal with the external and with the posterior surface of the os calcis for six weeks; that is, until each surface gets six treatments.

Electrohemostasis in Place of Ligatures

IN *Surg. Gynec & Obstet.*, July, 1932, Dr. H. H. Young, of Baltimore, points to the necessity for careful and extensive clamping and ligaturing of vessels to obtain exact hemostasis in surgery. He has not been convinced that, in the ligation of blood vessels of any size, electrosurgery should be used instead of the safe and certain method of ligation; but in extensive operations, which would ordinarily require great numbers of ligatures for small bleeding points, the value of electrosurgery is great, if the technic adopted is such as to cause a minimum amount of destructive tissue change.

The author considers it of prime importance that the whole electrical armamentarium should be simplified and standardized as much as possible, and this has been accomplished, with the active cooperation and expert advice of manufacturers.

An apparatus has been devised and constructed so that perfect duplication of performance can always be depended upon, and such that no extraordinary electrical or mechanical aptitude is required of the surgeon. The entire mechanism is encased in a wooden cabinet a little over one foot cube. There is only one adjustment — the lever which regulates the amount of power. The position of this lever shows, at a glance, how much output power it is set for. The spark gaps are fixed and require no adjustment or attention. A special arrangement maintains constantly accurate spacing of the spark gaps while in operation, a matter that is very vital in obtaining uniform, reproducible results.

There are various safety devices and, in order that the operator may have at hand several different types of electrodes ready for instant use, three such cords, with operating handles, are provided, in addition to the cord which is attached to the metal plate upon which the patient lies.

The electric current does hardly more than to cause a sealing of the bleeding points and very little destruction of tissue or actual necrosis.

Roentgen-Ray Therapy of Angina Pectoris

SATISFASTORY results were obtained in 18 or 19 cases of rather severe angina pectoris treated by roentgen-ray therapy, in addition to the accepted measures of relief. These ordinary measures alone had failed previously to give relief and the roentgen-ray therapy is believed to have been the deciding factor. The technic employed was: kilovoltage, 140; milliamperage, 5; distance, 20 inches; filtration, 0.25 mm. of copper, plus 1 mm. of aluminum; time, 8 to 10 minutes. The radiation was usually applied to the anterior chest wall. — DRS. E. C. SAMUEL AND E. R. BOWIE, in *Am. J. Roentgenol.*, June, 1932.

CLIN. MED. & SURG. is the livest medical journal that comes to my desk. — J.R.N., M.D., Illinois.

NEWS NOTES

Congress of Physical Therapy

THE twelfth annual meeting of the American Congress of Physical Therapy will be held at the Palmer House, Chicago, September 11 to 15, inclusive, 1933. Get details from Dr. Frederick B. Balmer, 30 North Michigan Ave., Chicago.

Meantime, the Mid-Western Section of the Congress will hold a one-day session, with a good program, at Peoria, Ill., May 15, 1933.

The Energy Spectrum

IF the shortest known cosmic rays were represented by a length of one inch, the longest radio waves, on the same scale, would reach a distance 100 times that between the earth and the sun — 9,200,000,000 miles! — Westinghouse Technical Press Service.

Electrocoagulation of Tonsils

DR. Wm. A. Gross will demonstrate his technic for electrocoagulation of tonsils in his clinic at the Illinois Eye and Ear Infirmary, 904 W. Adams St., Chicago, every Thursday at 3 P.M.

STOMATOLOGY

OFFICIAL ORGAN OF THE AMERICAN SOCIETY OF STOMATOLOGISTS
ASSOCIATE EDITOR: ALFRED J. ASGIS, Sc.B., M.A., D.D.S.

The Common Problems of Proctology and Stomatology

THE establishment, for the first time in America, of a regular Department of Stomatology in a leading medical publication is a sign that physicians and dentists are now prepared to discuss their common problems in terms of equality and fraternal relationship. We should all hail this status as being conducive to the good of medicine and dentistry. The specialty of stomatology is especially fortunate in having a leadership of broad-visioned and far-seeing men who are insistent upon the recognition of dentistry as a branch of medical science. The medical profession is obligated to aid this special field of medical practice in its further evolution without outside interference or hindrance.

Specialists in stomatology have a logical claim upon medical and dental educators for a readjustment of the curriculums to meet the newer standards of dental practice. The medical profession would be generous indeed (and not altogether altruistic) were it to energetically cooperate with dental schools in furnishing favorable facilities in hospitals and medical schools for postgraduate training of practicing stomatologists in physical diagnosis, general medicine and surgery and related clinical courses.

For their part, stomatologists could and should evidence their willingness to further the general cause by becoming associated members of the American Medical Association and by attending the sessions of the Section of Gastroenterology and Proctology. As members of this Section, they could benefit in many ways through association with other workers in closely allied specialties. Physicians will more readily appreciate the complexities of some stomatologic problems and, as a consequence, be willing to offer their cooperation more readily. This may serve as one of the means of affording stomatologists an opportunity to be heard more directly at our medical meetings.

Now, more than ever, we need such coordination of our endeavors to further unity of purpose for our common interests. We must strive for greater solidarity of organization of dentists and physicians to insure our self-preservation during these rapidly changing social conditions.

As proctologists and stomatologists, our aims to serve the health needs of the public are the same. Our interests are now becoming increasingly common. What greater opportunity is needed than to pool our stock in trade, our fraternal good will, for the common good? Let each of us make a move in this direction, so that we may render better medical and dental service to a public that needs it.

J. F. MONTAGUE, M.D., F.A.C.S.
New York City

PHYSICIANS AND DENTISTRY

It is absolutely necessary for human wellbeing that medicine should foster the training of specialists who will all be on equal footing and who will have regard for the patient as a physical, mental and social organism—and it must not be forgotten that the teeth are a part of the physical organism. Dentistry must have the same relation as any other specialty to medicine as a whole.

At Yale University this view is being carried into effect by bringing into the school of medicine a few of the best available graduates of schools of dentistry and giving them material assistance to take the degree of doctor of medicine while still continuing as dental practitioners.—DR. M. C. WINTERNITZ, *Dean of the Yale University School of Medicine, in* Dent. Cosmos, *Feb., 1932.*

Unusual Maxillary Antrum Infection Through the Oral Cavity

By Walter G. Urban, D.D.S., M.S., Pittsburgh, Pa.

IT HAS been known for a long time that oral sepsis plays a very important part in producing systemic infections. Likewise many systemic diseases present oral lesions. Therefore, when the practitioners of medicine and of dentistry do not cooperate in treating a patient suffering with an unusual or improperly diagnosed disease, the patient is dissatisfied and the practitioner's reputation becomes involved when the patient's family or friends start to complain of the slow recovery. The general practitioner has a tremendous responsibility when he attempts to treat every ailment within his field. It becomes necessary for him to prepare himself carefully, to be able to cope with as many complicated cases within his field as possible.

Many medical men fail to seek the cooperation of a fellow practitioner, for fear that the patient concerned will cast reflections on them, or because they refuse to admit their limitations. Such should not be the case. An ethical physician respects his fellow practitioner and is willing to assist him at all times. There is a great need for proper cooperation between the general practitioner and the specialist. This is important, because many specialists look only to their respective branches, and overlook the body in general. This is folly. A practitioner or specialist, when treating a case, regardless of what part is involved, must consider the whole body.

Infection of the maxillary antrum through the nasal route, by means of apical abscesses on the upper bicuspids and molars, or through perforation by accident during extraction, is a common occurrence and is often witnessed in practice. Therefore, when these conditions are present in a patient, the practitioner has no difficulty in his diagnosis and treatment of the case.

The following case is presented because it is unusual and has been difficult to diagnose properly. It likewise shows the importance of proper cooperation between the general practitioner and a specialist.

Case Report

Miss M., age sixteen years, complained of daily headaches for five weeks. An examination by her family physician revealed nothing serious, and no organic disturbance was present. He treated her for chlorosis, but her headaches continued and she began to complain of nervousness.

Her father, being dissatisfied with the treatment by the family physician, consulted a neurologist, who diagnosed the condition as "neurasthenia" and advised a change in her environment, in order to help improve her general condition ("she then would forget about her annoying headaches") and a complete "oral prophylaxis," to help improve her physical appearance and to start her to create new interests in life.

At the time she received the oral prophylaxis, her dentist noticed gingivitis surrounding the upper molars and the lower anterior teeth. He treated the gingivitis with local applications of drugs and, when the bleeding from her gums ceased, the case was dismissed as "cured." The patient still suffered with headaches and was showing signs of extreme nervousness.

Three weeks after the patient was dismissed by her dentist, she had an accident which injured her nose. This accident required the attention of a rhinologist, to prevent any deformity. At the time that the rhinologist made his examination, he noticed that the patient was also bleeding from the mouth. The hemorrhage stopped, and the following day the rhinologist consulted me at my oral surgery clinic and arranged for a complete oral examination and diagnosis of the patient's condition.

I found that the patient was suffering from a severe case of septic pericementitis. Upon examining the depth of the pockets of suppuration with a subgingival explorer, nothing unusual was disclosed until the upper bicuspid and molar regions were examined. In the upper right bicuspid and molar region, when the subgingival explorer was placed in the interproximal space between the second bicuspid and the first molar, it was noticed that the pocket was so deep that the instrument passed into the bone without any obstruction. Upon completing the examination, it was found that no teeth in these regions were affected by caries.

The upper right bicuspid and molar regions were anesthetized with a two-percent solution of procaine; a gum flap was made from the upper right first bicuspid, extending back to the upper second molar; and this flap was retracted, exposing the underlying bony tissue, which proved to be necrotic. The septal space between the second bicuspid and the first molar was partially destroyed by necrosis. The upper right second bicuspid had been very loose, through loss of its surrounding bony structure. This tooth was then extracted and the necrotic areas were removed. The area operated upon was again examined with a special, hooked explorer, which caught on soft material. When the instrument was withdrawn it was found that it had attached to it a small piece of wood (which later proved to be part of a toothpick).

The area was again examined, after thoroughly removing all debris, and it was discovered that there was a small opening leading into the maxillary antrum. This opening or perforation was not accidental nor due to piercing the antral floor during the examination, for at no time was an examining instrument passed so high into the cavity. Also the perforation or opening in the antral floor was distinctly visible only after thoroughly irrigating the area.

After irrigating, the area was disinfected with a solution of mercurochrome, the bony areas were smoothed, the gum flap returned to its original position, drawn together with the lingual tissue and sutured. This method prevented the antrum from becoming infected with the oral

secretions. The wound healed without any discomfort or complications. The remaining gingivitis present in the mouth responded to treatment and the case was dismissed.

Two days after the upper right bicuspid region was operated upon, the patient noticed that she did not experience any headache. Later her headaches were intermittent. One month after I operated upon this patient she stated that her headaches had completely disappeared and that she was gradually overcoming her nervousness. Three months later I saw her and she was in perfect health. Her family physician and the neurologist were both greatly surprised at the rapid improvement and, with some hesitation, admitted that her condition was toxemia due to oral infection, which they did not suspect.

I feel quite certain that the chief factor in this patient's ailment was oral infection, the proof being in her recovery, following the removal of the oral foci.

This is the second case of maxillary sinusitis I have seen, due to extension of infected pericementitis involving the floor of the antrum; but I have seen many more due to apical abscesses.

72 South 19th St.

NOTES AND ABSTRACTS

The Removal of Teeth by Open Dissection*

Indications

1.—Impacted teeth.
2.—Buried root fragments.
3.—Teeth retained by non-elastic, thick or sclerotic alveolar process.
4.—Teeth with marked curvature of root apices.
5.—Teeth with hypercementosed roots.
6.—Teeth with roots whose length or divergency invite fracture of the alveolar plate.
   A. Maxillary cuspid.
   B. Maxillary first molar.
   C. Mandibular cuspid.
7.—Teeth harboring foreign bodies which extend beyond root apices:
   A. Broken broaches.
   B. Canal fillings.
   C. Apical "buttons."
8.—Teeth with apical lesions:
   A. Granuloma.
   B. Cystic growths.
   C. Necrotic bone.

Anesthesia

Local anesthesia is to be preferred.
   A. Any standardized technic of injection.
   B. Supported, when necessary, by preoperative sedation: Morphine—codeine—barbiturates.

Technic

1.—Rigorous asepsis.
2.—Incision.
3.—Blunt dissection of flap.
4.—Flap retracted.
5.—Hemorrhage controlled by sponges or sucker tip.
6.—Removal of overlying bone.
7.—Removal of tooth and pathologic processes.
8.—Sharp bony margins trimmed.
9.—Flap sutured to place.
10.—Light packing of iodoform gauze during early postoperative period, when indicated.

Postoperative Routine

1.—No fluid intake for one hour.
2.—℞ for pain:
   Codeine Sulphate....grs. IIss (0.16 Gm.)
   Acid Acetylsalicylic..grs. XV (1.00 Gm.)
   Phenacetin.....grs. XV (1.00 Gm.)
   M. et fiat caps. No. V.
   Sig. 1 capsule at once;
   1 capsule every 4 hours, p.r.n.
3.—Tissue-bearing, hot, isotonic saline solution, as mouth-wash, t.i.d.
4.—Any accepted antiseptic mouth-wash, in proper dilution, b.i.d.
5.—Mild saline cathartic daily, if necessary.
6.—Force fluids.
7.—As nearly normal diet as possible.
8.—Intermittent cold packs externally for swelling, when necessary.
9.—If iodoform packing is used, replace every 48 hours, eventually substituting it with saline irrigations.
10.—Remove sutures in 3 to 5 days.

SETH. W. SHIELDS, D.D.S.
FERDINAND G. HEIMLICH, D.D.S.
Indianapolis, Indiana

*Presented before the International Postgraduate Medical Assembly, Oct., 1932.

NEWS NOTES

Centennial Dental Congress

THE Chicago Centennial Dental Congress, to be held at the Stevens Hotel, Chicago, August 7 to 12, inclusive, 1933, will combine the two largest dental meetings: The 75th annual session of the American Dental Association and the 69th annual meeting of the Chicago Dental Society, will portray 100 years of dental progress and will be the most elaborate meeting of the kind ever held. Plans for the summer should include this great meeting.

For full particulars write to Edward J. Ryan, Chairman Publicity Committee, 185 N. Wabash Ave., Chicago.

A LIVING FOR THE DOCTOR

The Philadelphia County Medical Society on Medical Economics

IN *THESE* distressing times of economic unrest, when business in every line is in a state of upheaval and a new system of industrial activity seems to be evolving, it is interesting, and perhaps will be profitable, to note the views of the oldest county medical society in the country, on the subject of medical economics.

The Committee appointed by the Philadelphia County Medical Society to study this matter has dealt constructively with the economic condition of the medical profession of Philadelphia, in its relation to public health. Its conclusions are terse and to the point. A mere recapitulation of them is a valuable lesson, in and of itself. Briefly, some of these conclusions are as follows:

"The care of the public in matters of health, disease and injury is and should continue to be under the direction of the medical profession.

"Since hospitals, health centers, government bureaus and the like are merely accessory to the private physician, it follows that any form of competition set up by such organized groups against the private physician is contrary to the public interests.

"Any extra-professional plan which has for its aim the economic control of the medical profession is a direct attempt to limit the patient's selection of his physician and is incompatible with the best interests of the community at large.

"This Society sanctions and deems it ethical for its physician members to serve in free clinics and wards maintained by approved hospitals or other charitable institutions or agencies, providing such charitable institutions or agencies have included in their budgets amounts to be used and which shall be used for the proper remuneration of the physician for his services rendered and that such remuneration shall be based on the services rendered for each individual patient."

These statements of the Philadelphia Committee, and others not quoted here, are full of meat and pregnant with valuable suggestion. Especially do we wish, at this time, to enlarge for a moment on the last conclusion quoted above.

During the centuries that have elapsed since the Hippocratic Oath was formulated, the humanitarian and philanthropic aspects of medicine have grown in importance in the popular estimation, to such a degree that they have overbalanced the practical economic phase of the question. The code of ethics, valuable and essential as it is, has slowly but surely been carried to a *reductio ad absurdum*.

It is true, beyond all possibility of controversy, that the medical profession has become the most philanthropic of all professions and other lines of business. No other business or profession does the amount of charitable work as does it; but the philanthropic aspect of the vocation should not and must not overbalance and becloud the fact that doctors are primarily in business for business reasons, and that the philanthropic aspect is secondary to the duty devolving upon them to provide for themselves and their families. They must do this, and not neglect the other. If they are not practical enough to provide a proper maintenance for themselves and their families they will, sooner or later, become public charges. In other words, their neglect in this matter throws the responsibility for their support upon the community at large. If such an attitude should prevail in any other calling, the voice of protest would be loud and emphatic. The medical profession, in this respect, differs in no wise from any other line of work.

Why, then, is it that we constantly see this, the noblest of all professions, belittling itself and breaking all the laws of economic science by offering and giving its services free of cost to institutions and individuals, who can and should pay for them, were it not for the foolish stand taken by the doctors themselves? No other business or profession — the chemists, the dentists, the engineers, no, nor the clergymen — give their time and services free anywhere for the purpose, as is claimed, of acquiring ex-

perience. It costs to marry our loved ones and to bury our dead. We must pay for everything we require; but we can go to the various free clinics and dispensaries to get the greatest thing of all — health and continuance of life. It is not proper that this should be. It is because of this fallacy in the attitude of the profession itself that public opinion has been trained to neglect the remuneration of the doctor, and even to feel that it is his bounden duty to care for the people free of cost.

A corporation lawyer will charge $100,000 to draw up a contract or other legal document, and exact a $500 retaining fee before he can be approached; but let a doctor charge $20,000 for an appendectomy or a cholecystectomy, and the entire country is aroused into violent protest. The one protects the corporation — whether rightly or wrongly we do not say; the other saves a life — whether valuable or otherwise it matters not. It becomes a question of individual opinion which is the bigger thing; but most of us believe that the saving of a life is a very important matter.

It is because of our belief in the high standing of medicine in the world that we have long maintained that it should be regarded as both undignified and unethical for a medical man to accept a position in a hospital, medical institution or other concern without receiving therefor adequate compensation, if possible, or at least a nominal return for the services rendered.

Slowly but surely this view is being adopted. Many hospitals are now paying their internes from fifty to seventy-five dollars a month, together with board, lodging and laundry, where formerly such compensation was not even considered. Certain medical institutions, notably in the East, pay every member of the teaching staff a monthly sum commensurate with the services rendered, from the lowest assistant demonstrators to the heads of the departments. This is as it should be; and we hope that, by calling attention to this, the economic side of the practice of medicine, thought may be awakened that will tend to raise the profession, both in its own estimation and in that of the public at large and, incidentally, improve its financial condition.

W. A. Newman Dorland

Chicago, Ill.

NOTES AND ABSTRACTS

Social Insurance: Counter Suggestions*

THE medical and dental professions of this country are giving the American public the best all-round health services ever enjoyed by any nation and are, on the whole, serving the nation as well as or better than any other group of men. These two professions have a very general and most intimate contact with the citizens of the nation. No other professions are in so favorable a position to exert so great an influence for good as are these two, if they will but use their opportunity rightly and wisely. If they are to accomplish the greatest possible good they must make still closer contacts with and exert still greater influence upon the political, social and ethical life of the nation.

These professions, as a whole and as individuals, must strive unceasingly and untiringly, in the future as in the past, for still further improvements in their respective fields. If unhampered by lay bureaucratic supervision and control in the future, as they have on the whole been in the past, I have every assurance that they will proceed to new and greater achievements: if, on the contrary, they are unduly hampered, we have every reason to expect medical service to deteriorate and medical progress to cease, as it has already done in those countries whose governments have interfered the most.

In order to maintain the high standard of medical services prevailing, the professions must insist that the governments of the various states maintain high standards of requirements for admission to the practice of the professions. In order to accomplish this, continued education of the public in this regard is necessary.

The organized professions, through their proper local organizations, must see to it that all undesirables are weeded out and that the individual members render efficient service for adequate and yet reasonable fees. The professional man who makes unreasonably exhorbitant charges for his services is even a greater menace to private practice than is he who charges too little. The former is the one to blame for most of the antagonism and resentment among the laity, while the latter, because of his unfair competition, makes it difficult for his colleagues to secure the necessary means for the graduate work so essential to growth and progress.

Having presented to the attention of my readers through these articles the defects of social insurance, as practiced at present in foreign countries, and also having shown the dangers of such a system if allowed to become fixed upon

*This is the tenth of a series of articles on social insurance.

the American citizen, I offer, as counter-suggestions, that the government, instead of trying to take over new functions and new powers, would do better were it to make every effort to perform acceptably the duties with which it now is entrusted. We of the medical and dental professions insist that the government give better medical services to its prisoners, delinquents, insane, paupers and government wards in general; that it give more serious attention to sanitation and hygiene, particularly to ventilation of public conveyances and places where large numbers of people congregate, and to the prevention of pollution of our sources of community water supply, such as lakes and rivers.

The allied professions, in conjunction with the government, should give more serious attention to the teaching of personal hygiene in our schools, colleges and universities. Our educational institutions should teach the rising generation the value of integrity, industry, thrift and frugality, and that there is no substitute for these—not even (or least of all) legislation. Teach them that trying to "keep up with the Joneses" is not necessarily a virtue and that the installment buying of luxuries is poor business. Teach them that to learn how to get one's money's-worth and to acquire a competence are much more worth while. Teach them that trying to get something for nothing, particularly through gambling, whether it be crap-shooting, poker or buying stocks on margin, is fundamentally dishonest and almost invariably leads to disaster.

Better provisions for safe-guarding the savings of our workers should be made and, if there is no way of accomplishing this, there should be established a compulsory government insurance against sickness, whereby the individual worker pays for his own insurance; in other words, separate entirely medical services and cash benefits. The physician should, under no circumstances, be medical adviser and insurance adjuster, as he is in fact in all systems of compulsory health insurance now in vogue.

Social insurance is man's latest attempt at finding a means whereby social justice may be attained. But like all panaceas so far advanced it is sure to make conditions worse rather than better. The first and most important thing to do is to secure honest and efficient government, and this cannot be accomplished until the general standard of honesty has greatly improved, which is simply another way of saying that there is no substitute for character of the individual members which make up a nation.

Finally, devise means and methods whereby remuneration and reward shall be in direct proportion to time and energy legitimately expended and to the value of services rendered to society.

While the underlying purpose of social insurance is to secure the more equable distribution of wealth and to employ the weapon of taxation in order to secure the necessities and comforts of life to the poor at the expense of those with larger incomes, the system is, of necessity, a failure, because it does not conform with the foregoing fundamental principle of justice, but instead rewards the inefficient at the expense of the efficient; the lazy, shiftless and immoral at the expense of the industrious, thrifty and moral. While it is unquestionably true that certain individuals have been and are still receiving money for which they have not rendered an equivalent service to society, trebling and quadrupling and even multiplying the number of these parasites by ten does not correct the evil. The remedy must be much more fundamental.

This formula will require the best brains of the country for its practical application, but I am firmly convinced that it is the only formula that offers a practical solution to our social and economic ills, not only of the allied professions, but of society in general. If it is followed, those members of society who are doing the world's work will have enough money to employ capable dentists and physicians of their own choice and will then be assured adequate health service.

EDWARD H. OCHSNER, M.D.

Chicago, Ill.

Injection Treatment of Hernia

IN *M. J. & Record*, Mar. 16, 1932, Dr. I. Mayer, of Detroit, treats of the injection method of hernia correction, based on his experience of more than 2,000 cases treated in this way during the past 30 years.

The injection solution which the author has found most satisfactory is:

Zinc sulphate	1 dr.	3.9 Gm.
Phenol crystals	6 dr.	23.3 Gm.
Glycerine (C.P.)	4 fl. dr.	15.0 Gm.
Aqua cinnamoni	1 fl. oz.	30.0 Gm.
Fl. ext. pinus canadensis (dark)	5 fl. dr.	18.5 Gm.
Sterilized, chemically-pure, redistilled water	2 fl. oz.	59.2 Gm.

The injection is made according to the author's technic, which he has described in previous publications.

By the injection method the author has obtained 98 percent of cures, without surgical intervention and without recurrence for a number of years. There were 2 percent of recurrences, which were permanently cured by a second course of injections.

The author does not claim that this method is applicable to all cases, but in his experience it is effective in all kinds of reducible hernia, that it is productive of fewer recurrences than surgery, and that, unlike surgery, it has no mortality percentage. The method is most definitely indicated for inguinal hernia.

The injections are made once or twice a week and the patient may pursue his vocation.

I take this opportunity of reassuring you of my great interest in your valuable and delightfully written journal. (CLIN. MED. & SURG.). — F.P.M.C., England.

Fees in Advance

I WISH to give an illustration of how I try to conduct my office practice—and it has worked for 20 years!

A few days ago, my wife was in one of our stores doing some shopping. A saleswoman told her she had a fur coat she wanted my wife to see. The price of the coat was some $350 or $375. The clerk told her that, in the early September sales, this coat would be priced at about $275 and that, in December, the same coat would go back to its former price. But, the clerk went on, if she could be assured that Mrs. Rose would take the coat, she could have it NOW for $225. That meant either to pay for it in cash or to establish her credit, so that the store would know it was a sale. Of course, she bought the coat.

Now let me change that sale to my office. A man came to me not long ago, who had a carcinoma on his face that was easy to treat. He had been to a town thirty miles from here and had had some radium and x-ray treatments, covering a period of six months, and *still had the growth.* He had paid $475 for the treatments he had received, and got nothing for his money; neither did he have any understanding with the doctor about fees. He was disgusted with every man who called himself a doctor, because one man had not been a business man, as well as a doctor.

Before attempting any sort of treatment at all, I asked him if he were to be placed on my books as a charity case, a semi-charity case or a pay case. He resented the fact that I should even mention his being a charity case, which is my first and real test as to whether or not I am to handle a case for nothing. Then I talked fees! I told him that I would treat him by the month, by the visit, or by the job. If he wanted me to treat him at so much per month, I would render a statement at the end of each month, which I expected to be paid by the fifth of the succeeding month, and the price per month would be $100. If he preferred to trust me, he could pay me for the whole job when we started or at a time agreed upon by both of us. I estimated that it would take three months to do what I thought was needed, but that, if he wanted to pay cash, instead of paying $300 in three payments, he could give me a check for $200 and I would stick at the job as long as necessary. I received the $200 at his first visit! He is pleased and I know I am. Not only that, he has sent me three patients since then, and each one has told me, before I had a chance to talk, that he wanted to make such a bargain as Mr. W. made on his case, because he did not want to run up a bill that he might not be able to pay. I can always recognize a patient that has been sent to me by one of my other patients, because he invariably tells me just how Mr. So and So explained that I conducted my affairs, for each referred patient prefaces his remarks by asking that he have a chance to take advantage of a reduction of cost by paying in advance.

Sooner or later, medical schools will or should establish courses which will enable a medical student to run his affairs in a business way. I never heard one word about fees in school. Can a young doctor be expected to gain the respect of his community when he is a numbskull about essential things like finances? Farmers will argue a whole day at a stock sale about a one-dollar bill. They want to know what they are buying and how much they are paying for it. Why should they have to go to a doctor and be dealt with as a child by a child? It is nonsense!

SAMUEL J. ROSE, M.D.

Lexington, Ky.

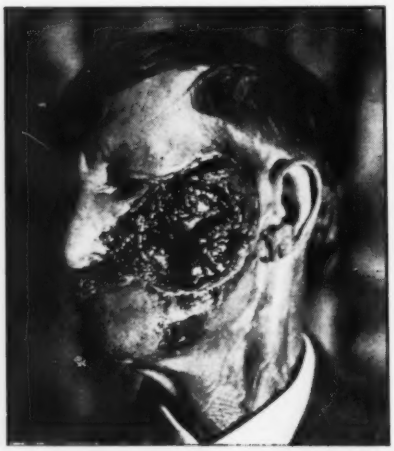

Fig. 1.—A Case of Superficial Cancer Before Treatment.

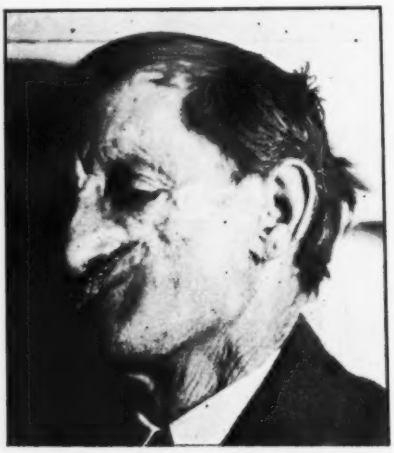

Fig. 2.—Same Case After Treatment

COST OF NEWER DRUGS

The newly discovered drugs, which have been recently produced by the chemists, are indispensable to the physician; and I am convinced that the general selling price of such drugs, based on the cost of chemicals, research, labor, selling cost and overhead, is no higher, relatively, than that of other chemicals.—PROF. ROGER ADAMS.

THE SEMINAR

[NOTE: Our readers are cordially invited to submit fully worked up problems to the Seminar and to take part in the discussion of any or all problems submitted.

Discussions should reach this office not later than the 1st of the month following the appearance of the problem.

Address all communications intended for this department to The Seminar, care CLINICAL MEDICINE AND SURGERY, North Chicago, Ill.]

PROBLEM NO. 3 (UROLOGIC)

Presented by Dr. Eldon L. Carlson, Madrid, Ia.

(See CLIN. MED. & SURG., Mar., 1933, p. 176).

Recapitulation: The patient is a man 30 years old, whose personal history is unimportant. His father and mother both suffer with "chronic bronchitis"; one sister died at 28 from multiple pulmonary abscesses; a living sister shows a low basal metabolic rate and hypoadrenia. The general physical examination shows nothing important, except a hemoglobin percentage of 80 and a moderate, dry, unproductive cough.

Present Illness: Periodic attacks of gross hematuria, with clots, coming on at intervals of four to six weeks and lasting several days, with pain over the right kidney, radiating at times to the penis and testicles, and occasionally typical renal colic. In 1930 a roentgenogram showed a calculus in the right ureter which, after treatment with diathermy, passed into the bladder and was later removed from the urethra. The stone was the size of a large pea, rough and tan-colored. A plain roentgenogram made in March, 1932, showed nothing abnormal in the lower abdomen and pelvis.

Requirement: Suggest further diagnostic procedures, probable diagnosis and treatment.

DISCUSSION BY DR. J. A. DUNGAN, GREELEY, COLO.

A careful x-ray study should be made of both of this patient's kidneys, with pyelography, and also of his lungs. The family history suggests possible pulmonary lesions and the periodic hematuria suggests possible calculi in one or both kidneys, with stones attempting to enter the ureters.

If pyuria is present, the patient should be given methenamin and acid sodium phosphate, in appropriate doses.

If the prostate is involved (as I have frequently found it to be in such cases, in males), treatment with massage and diathermy should be considered.

It seems probable that uricacidemia may be present in this patient. If so, his blood and tissue fluids should be alkalinized as speedily as possible.

DISCUSSION BY DR. JOHN R. SMITH, WARSAW, MO.

The history, here, is sufficient to indicate that the pelvis of the kidney has been traumatized. The color of the stone removed suggests that it contains uric acid. There are probably more in the pelvis of the kidney.

The most likely diagnosis is chronic interstitial nephritis, but we need to go further back and find out what caused it. The gastrointestinal symptoms suggest a disordered digestion, involving the liver and pancreas. There may be a tuberculous condition developing in the right kidney, and if that is the case, the organ should be removed to save the patient's life.

In such cases as this there is almost always toxicosis which, in my opinion, is best cleared up by giving ½ grain (32 mgm.) of calomel and ¼ grain (16 mgm.) of podophyllin, every 2 hours for 4 doses, followed by 10 grains of triple sulphocarbolates (Abbott) every 3 or 4 hours for several doses.

DISCUSSION BY DR. WINFIELD SCOTT PUGH, NEW YORK CITY

In this case the chief symptom appears to be hematuria. When a patient presents that symptom, always think of stone, tumor or tuberculosis somewhere in the urinary tract. These are not the only causes, but the most important, and must be ruled out.

There is something in the upper urinary tract causing stone formation. That means urinary interference, plus infection. Stones that were probably in the right ureter have been seen in certain x-ray pictures, and he has passed concretions and some were removed by his physician.

The patient needs a complete urologic examination. He should be given some mild urinary antiseptic, such as methenamin, and then the cystoscope should be used, at the same time examining the urethra. If nothing is found in the bladder, pass radiopaque catheters up to the pelvis of each kidney, as carefully as possible. If an obstruction is met in the ureter, it is more likely to be a blood clot than anything else, in accordance with the history presented.

It is sometimes difficult to pass such obstructions, but twisting the catheter around will usually do it. When we reach the pelves of the kidneys, take specimens of urine and examine them for urea, tubercle bacilli and the pyogens. If the samples are very bloody, irrigate the renal pelves very gently with one-half percent silver nitrate solution, which will usually check the bleeding. Separate kidney function tests (phenolsulphonepthalein) must be taken and carefully recorded. If there is a badly damaged

kidney from any cause, it will usually show diminished activity. Take a plain x-ray picture, with the catheters in place. If no stone is seen in the first picture, take two or three more.

A bilateral pyelogram is now in order. Inject both kidneys at once, through the catheters, with 15 percent sodium iodide solution. This suggestion is not so heroic as some would have us believe. I have seen no difficulty in over 1,200 bilateral pictures. The day of the single urogram has been relegated to the archives of medical lore.

If for any reason a cystoscopic procedure is contraindicated (and this would be unusual), intravenous urography is available. My usual technic is to cleanse the bowel and then inject about 20 cc. of Uroselectan (Skiodan), or a similar substance, into a vein at the bend of the elbow, and take pictures at fifteen, thirty, forty-five minutes and one hour after the injection. If the kidney functions well, we will obtain a good picture; if poorly, a less valuable image will appear. This gives a good comparison of the two sides when no other means are available, but the fact is quite definitely established, that the intravenous technic is not a substitute for cystoscopy with retrograde pyelograms and should not be attempted, except as I have noted.

Everything in the available history suggests that this man is still forming stones. If the pictures do not reveal a stone or a stone pyonephrosis, he is certainly headed in that direction. Blood often masks the presence of a stone.

If no stone nor a pyonephrosis is revealed, dilatation of the right ureter once a week, starting with a number 6F. catheter and gradually increasing the size, is indicated. In addition to this, irrigate the right kidney with boric acid solution, and then instill a few drops of half-percent silver nitrate solution. Should small stones be present this will facilitate their passage.

In the event of marked kidney infection, do not delay, but remove stones surgically. Should pyonephrosis be present, nephrectomy is indicated, provided the other kidney is functioning well. If the minor procedures I have suggested are not carried out, loss of the right kidney is inevitable, at some future date.

Discussion by Dr. Harry C. Rolnick
Chicago

The following diagnostic procedures are indicated: (1) Intravenous pyelography; (2) cystoscopy and retrograde pyelogram. With that information at hand, which would determine the function of each kidney, the amount of damage to the right side and the possible presence of stone, proper treatment can be instituted.

The probable diagnosis, on the basis of the history now available, is that of *calculous pyonephrosis* of the right side. In view of the duration of symptoms and persistent recurrence of hematuria, there may be considerable right-sided kidney damage present.

If a small stone or stones are found, without any evidence of kidney damage, it would be well to remove them surgically, by either pyelotomy or nephrotomy, for the recurrent attacks of hematuria are an indication for active measures. If no calculi are found, and the kidney apparently is not damaged, it is possible that this hematuria is on the basis merely of a ureteral stricture, secondary to stone. Ureteral dilatation would be all that is necessary in that case.

Additional Notes by Dr. Carlson

Cystoscopic and pyelographic examinations have been made upon the subject of Seminar Problem No. 3, the reports of which follow:

Cystoscopic Examination (Mr. H.S.)

The bladder was normal in size and contour. There was no evidence of inflammation. The blood present was coming from the right ureter. Ureteral catheters were inserted, and pure and hemolized blood came from the right catheter. The left catheter collection showed clear, amber-colored urine.

Laboratory Examination

Right kidney urine: Amount, first 30 minutes, 30 cc.; dye excreted, trace. Amount, second 30 minutes, 21 cc.; dye excreted, none. Microscopic examination: casts absent; pus, very large amount, also hemolyzed blood. Stained slides show gram-positive cocci. Tubercle bacilli not found.

Left kidney urine: Amount, first 30 minutes, 32 cc.; dye excreted, 15 percent. Amount, second 30 minutes, 21 cc.; dye excreted, 3 percent. Microscopic examination: Casts absent pus, none; blood, small amount, due to catheter irritation.

Conclusions

Infected, hydronephrotic right kidney.

Roentgenographic Examination of the Urinary Tract, with Pyelography

The left kidney and pelvis are normal. The right kidney is greatly enlarged. The pelvis and calices are greatly distended, with marked irregularity of filling. There is an area with no filling between the pelvis and the upper calyx, which is dilated. The measurement of this kidney, on the film, is 12 x 15 cm.; compared to 7 x 11 cm. shadow of the left kidney. There are two irregular areas of calcification in the upper pole.

Roentgenographic Conclusion

Marked enlargement of the right kidney, pelvis and calicies; hydronephrosis. The calcification present would suggest old tubercle infection.

Roentgenographic Examination of the Chest

The upper right and left lobes of the lung show scattered fibrosis, suggestive of healed tuberculosis. The bronchial trunk of the lower lung fields shows definite fibrosis and thickening.

B. L. Cash, M.D.

Quantitative urinalysis showed the total solids (58.4 Gm.), chlorides (17.24 Gm.) and uric acid (0.68 Gm.) to be somewhat high. There

was a trace of albumin; hemoglobin, 2 plus; pus cells, moderate number: a few erythrocytes.

The Wassermann and Kahn reactions were negative.

Over a period of four days, the temperature, pulse and respiration varied within normal limits.

Closing Discussion

By Dr. George B. Lake, Chicago

Upon receiving this problem from Dr. Carlson, I wrote to him, under date of Dec. 13, 1932, as follows:

"I should like to know if a Wassermann test was made, and, if so, with what result? It would also be well to have a complete blood study made, including red, white and differential cell counts, and also a complete quantitative urinalysis of a 24-hour specimen, with a microscopic examination of the sediment. A temperature, pulse and respiratory chart, based on readings at four-hour intervals during the day for several days, might also be instructive; and it might further be well to have an inoculation test on a guinea-pig made with his urinary sediment.

"This last statement will probably lead you at once to the suspicion that I am considering possible tuberculosis of the urinary organs, and, if you will look over the family history, I think you will at once see the basis for that suspicion on my part. 'Chronic bronchitis' is frequently a euphemistic diagnosis of chronic pulmonary tuberculosis. The sister who died at 28 from pulmonary abscess was also potentially tuberculous, and the same condition may be the cause of the hypo-adrenal condition of the living sister.

"It will be quite impossible to make any accurate diagnosis without a cystoscopic examination and a set of pyelograms, preferably stereoscopic."

It will readily be seen that my impression of the case was much like that of the other discussants, and that Dr. Carlson's later notes answer most, if not all, of the questions asked.

These notes go far toward confirming my earlier suspicions and lead me to feel that this patient is suffering from tuberculosis of the right kidney.

As to treatment, the affected kidney seems to be non-functioning and should probably be removed; but first the patient should be put in the best possible physical condition and the functioning of the left kidney carefully studied and brought up to normal. A dye excretion of eighteen percent in one hour is low, and by no means guarantees that the remaining kidney would be able to carry the load imposed upon it by the removal of the diseased organ.

Problem No. 5 (Medical)*

Presented by Dr. Sol R. Rosenthal, Chicago

The patient, a white female, fifty-eight years of age, awoke one morning with a sore throat. With it she had marked pain on movement of all her joints and on touching any of her muscles. No swelling nor redness of the joints was noted. Shortly afterward she became weak and dizzy, and then followed anorexia, nausea and vomiting. On entrance to the hospital she was unable to retain even water.

In her *past history*, she had injured her back one month ago. Shortness of breath was relieved some time ago by a green medicine. She drank much beer and whiskey.

On *physical examination* the patient was well nourished, slightly dyspneic and icteric. She did not appear acutely ill. Her temperature was 97°F.; pulse, 68; respirations, 28; and blood pressure 120/60. Her pupils were of pinpoint size and reacted slightly to light and accommodation. Her tonsils and pharynx were injected.

The heart was slightly enlarged and fibrillating. The lungs were essentially negative. The liver extended three finger-breadths below the costal margin and was tender. Reflexes of the upper extremities were normal, but the patella and achilles reflexes could not be elicited. Pelvic examination was negative.

The impression at first was that of an upper respiratory infection, with a subacute infectious arthritis and auricular fibrillation.

On admission her icterus index was 20; white blood cells, 16,700, red blood cells, 4,130,000, with 60 percent hemoglobin; the urine was highly colored, but otherwise negative; the blood Kahn reaction was negative; urea nitrogen was 94.

While in the ward, the patient became progressively more jaundiced, although her temperature was normal. She became drowsy and appeared toxic. Her stools now were clay colored. She appeared to be definitely in a cholemic state and soon went into a coma and died two weeks after the onset of the sore throat.

Requirement: Suggest a diagnosis and treatment which might have been helpful.

*Adapted from *Bul. Chicago M. S.*, Dec. 3, 1932.

CHILDHOOD AND MENTAL HYGIENE

Childhood is the golden period of mental hygiene, because it became apparent that when one discusses functional nervous and mental illness, delinquency, dependency, education and industrial failure, divorce and broken homes, one was not discussing a series of different problems, but different manifestations of the same problem—the inability of individuals to adjust to a complex social life because of a lack of an adequate emotional organization. And, as the groundwork for emotional organization is laid in childhood, that period, as Dr. W. A. White has phrased it, becomes the "golden period of mental hygiene."—Dr. F. P. Norburg, *of Jacksonville, Ill., in* Illinois M. J., Oct., 1930.

CLINICAL NOTES AND ABSTRACTS

Pituitary Treatment in Total Alopecia

(Report of Two Cases)

PROMPTED by the work of Bengtson on the pituitary therapy of alopecia, I have applied this form of treatment to two cases of total or universal alopecia.

That the anterior pituitary may have a definite part in the promotion of hair growth, was shown in Bengtson's series of sixteen cases, only two of which, however, were of the total type of alopecia. In this connection, there is an interesting and significant report, quoted by Ormsby, in which it is stated that Meacham recorded a case of total alopecia in a woman, with regrowth of hair during pregnancy and a relapse after the onset of menstruation. In the light of present knowledge showing the excess of anterior pituitary hormone in the blood of pregnant women, some connection of the hypophysis with the above-recorded case might well be assumed.

In the two cases herein reported, the result of treatment with nothing but anterior pituitary extract has been successful in one case and an absolute failure in the other. These cases, however, are offered to show that, in at least some cases of total alopecia, the pituitary therapy is successful, with the assumption that in others, some other gland, perhaps even some different pituitary hormone, is at fault. A contemplated measure, in the case listed as a failure, is the substitution of the socalled anterior pituitary "sex hormone," derived from the urine of pregnant women, in place of the true anterior pituitary extract.

Case Reports

Case 1: A dentist, aged 60 years, was first seen by me on December 17, 1931. Two years previously, he had lost all of the hair of his body, beginning with the scalp, in the course of about six weeks' time. Prior to the loss of hair, beginning in areata-like patches, he had a luxuriant growth of hair on the scalp. The onset of the alopecia was not preceded by any illness, worry, shock nor any other factor, to the patient's knowledge. He felt well physically. He had undergone various forms of therapy: infrared lamps, irritative plasters and ointments, and thyroid tablets, orally, all without result. The Wassermann reaction was negative. The basal metabolic rate was within normal range.

The patient was given 2 cc. of anterior pituitary extract, subcutaneously, twice a week and then the dosage was increased to 2 cc. three times weekly. After 58 cc. had been administered, a fine growth of hair was noted on the scalp and face. The patient has been under treatment for one year and has received a total of 256 cc. of anterior pituitary. The growth of hair on the body and scalp continues. The patient is still under treatment.

Case 2: A seaman, aged 42 years, married, with two children, had total alopecia of eighteen month's duration when first seen on February 1, 1932. Again there was no history of prior disease, worry or shock. The patient denied syphilis, and repeated blood Wassermann tests at a government hospital were negative, even after administration of iodides. Ultraviolet therapy to the scalp, together with various ointments locally, had been tried for nine months, without result.

The patient was given 2 cc. injections of anterior pituitary twice a week for 50 injections. With no encouraging sign, these injections were then supplemented with anterior pituitary by mouth, 5 grains (0.32 Gm.) three times daily. Thyroid was then added, 1 grain (64 mgm.) three times daily. Between September 7 and October 6, the patient took no treatment other than anterior pituitary by mouth. On October 7, it was decided to start daily injections of 1 cc. and, later, 2 cc. of anterior pituitary extract. The patient has had 186 cc. since that date, without any evidence of regrowth of hair.

References

1.—Bengtson, Bengt N.: Pituitary Treatment of Alopecia. *J.A.M.A.* 97: 1355, Nov. 7, 1931.
2.—Ormsby, Oliver S.: "Diseases of the Skin." Second edition, p. 1076, Lea and Febiger (Reference to Meacham, *Brit. Jour. Derm.*, 1912, 24:272).

JUSTIN A. ROGERS, M.D., D.N.B.
San Francisco, Calif.

Biologic Birth Control*

IT is possible to immunize women against conception by injecting human spermatozoa in large numbers (a total of 9 cc. or more of active semen), and this immunity lasts for about a year and can be renewed for another year by another series of injections. The degree and duration of the immunity can be determined by blood tests.

*Abstract of "Temporary Sterilization by the Injection of Human Spermatozoa." *A.J. Obst. and Gynecol.*, Dec., 1932, p.892.

The method is to obtain a specimen of semen, as fresh as possible; add to the total ejaculate (from 2 to 5 cc.) 1 cc. of hexylresorcinol; draw the entire amount of the mixture into a sterile syringe and inject it deeply into the buttock. This is repeated, at intervals of one week, until three injections have been given.

Twenty women have now been vaccinated in this manner, and none of them has become pregnant while her blood showed a definite toxic reaction against spermatozoa. There is some local pain for 24 hours after the first injection; less after the others. In one patient a small, sterile abscess developed, but healed promptly.

At the present stage of these investigations, this procedure is not practicable for general use, as it requires intelligent cooperation on the part of each patient, and, until a way is found to utilize the spermatozoa of other animals, commercial preparation of the antigen is impossible.

Further studies are in progress, to answer a number of questions that have arisen.

M. J. Baskin, M.D.
Denver, Colo.

Peptic Ulcer Syndrome Without Ulcer*

WE HAVE observed a large number of cases in which peptic ulcer symptoms were present, without being able to demonstrate ulcers by the fluoroscope. In some, the approved therapeutic measures were so effective that we felt the roentgenologist must have failed to recognize the ulcers. So many of these cases caused us to consider whether the symptoms were caused by other mechanisms than ulcer.

The patients were usually highly nervous and the symptoms came on during periods of unusual nervous or physical fatigue. In some instances, a particularly disturbing incident would establish the syndrome within a short time. Likewise, the symptoms would cease abruptly when the cause of the patient's concern was adjusted. Many patients said their symptoms disappeared when they were on vacation or could contemplate a pleasant holiday. In most instances the episodes of distress were brief or were not very severe, occurring on a particularly busy day or on several successive days. In some cases peptic ulcers developed subsequently, but treatment by rest, relaxation, recreation and a bland diet, with a few alkalies, usually cleared up the symptoms promptly. In some apparently serious cases, laparotomy was done without finding ulcer or other organic cause for the symptoms. In some, pylorospasm was present —this was also demonstrated by the fluoroscope in some cases. In others there were ulcers.

Individuals who seem especially liable to the development of peptic ulcer, or only its symptoms, are astute, efficient, aggressive and high-tensioned. Study of the syndrome suggests that the crucial derangement is in the nervous system. Disturbed psychophysiology leads to the symptoms and continued disturbance leads to actual pathologic change in the stomach, pylorus or duodenum. In any case, rest and relaxation and some therapeutic measures directed toward relief make the symptoms easier to control and favorably influence the course of the syndrome.

Drs. Andrew Rivers and Francis Vanzant.
Rochester, Minnesota.

*Nebraska State M.J., 17: 465, Nov., 1932.

Pentobarbital Sodium for Obstetric Analgesia*

THE ideal procedure for obstetric analgesia will combine maximal safety for mother and child, great relief from pain, increased uterine efficiency with a subsequent shorter period of cervical dilatation, and ease of administration of the analgesic agent. In addition to the analgesia, if adequate food and fluid intake is maintained, there should be fewer examples of exhaustion and shock.

A review of analgesic agents used in 160 obstetric cases has been made, with special reference to the results obtained from the oral administration of pentobarbital sodium (Nembutal) which was used alone in 99 cases and in combination with other agents in 41 cases, as shown by the accompanying table:

Drugs and Combinations of Drugs	Primaparas	Multiparas	Total
Pentobarbital sodium alone	58	41	99
Morphine, with or without magnesium sulphate	12	1	13
Pentobarbital sodium and morphine	26	3	29
Morphine, with or without magnesium sulphate and colonic ether	6	1	7
Pentobarbital sodium and morphine, with or without magnesium and colonic ether	8		8
Pentobarbital sodium and colonic ether	3	1	4
Total	113	47	160

The efficacy of the analgesia was judged on two bases: (1) the relief of pain, estimated by the patient's statements during and after labor and the observation of the physicians and nursing staff; and (2) the progress of labor, as compared to the usual length of labor and the rate of cervical dilatation before and after the administration of the analgesic agent.

The relief of pain, and the progress of labor, were graded on the basis of 1 to 4, with grades 3 and 4 considered satisfactory, grade 2 considered good, and grade 1 inadequate.

The relief obtained by fifty-one (45 percent) of the primigravidas, was graded 3 or 4; and in

*Proceedings, Staff Mayo Clinic, 8:166, 1933.

75 percent it was graded 2 or more. Pentobarbital sodium alone was responsible for the relief of 71 percent of the former and 73 percent of the latter.

It is difficult to evaluate the effect of the analgesic agents on the progress of labor and, unless a definite statement could be made, the results were not graded. The progress of fifty-five (48 percent) primigravidas was graded 3 or 4, and of eighty-two (72 percent) it was graded 2 or more. Pentobarbital sodium alone was given to thirty-two (58 percent) of the former patients and to forty-nine (62 percent) of the latter. The progress of twenty-three (50 percent) multigravidas was graded 3 or 4; and of thirty-seven (78 percent) it was graded 2 or more. Pentobarbital sodium alone was given to 21 (91 percent) of the former patients and to 31 (82 percent) of the latter.

To be effective, obstetric analgesia should be initiated early in labor. The general rule required the presence of definite, regular uterine contractions at not more than five-minute intervals, with definite dilatation of the cervix, and that patients make a definite statement of the severity of pain. Both criteria will vary considerably. Frequently the intensity of the pain can be determined more accurately by palpation of the uterus at the time of contractions.

One and a half (1½) grains (0.1 Gm.) of the analgesic drug was administered by mouth; this dose was repeated in twenty to thirty minutes, and again after another thirty minutes. Variation in dosage must necessarily depend on the effect, thus the patient must be carefully observed during this period. If the first two doses permit the patient to sleep between pains and reduce the sensibility to pain, the third dose of 1½ grains is often withheld and given when the analgesia decreases. If the effect of the initial 3 grains is insufficient, the third dose of 1½ grains is given. The further administration depends entirely on the patient. The average dose in this group has been 4½ grains, although 6 and 7½ grains have been given. An initial dose of 3 grains may be used if the pains are frequent and severe. This dose is also often given to multigravidas. If further analgesia becomes necessary after the maximum of 6 grains has been administered, colonic ether is often used. Occasionally, if progress at the first stage is unusually slow, morphine may be used.

I do not feel that the most efficient manner of employing pentobarbital sodium has been determined; further investigations will be conducted. However, enough has been accomplished to make a preliminary statement to the effect that it has been of definite value for obstetric analgesia and, further, that the margin of safety appears to be great, in that no instance of deleterious effect on the mother or infant was noted.

L. M. RANDALL, M.D.

Rochester, Minn.

Getting Results

EVERY now and then I hear a physician say that some endocrine product "seems to have played a part" in relieving a patient. That may not be strictly "scientific medicine," but it's good enough for all practical purposes. What does it matter which ingredient of a combination does the work (perhaps, in fact, it is the combination itself), so long as results are obtained and the patient is satisfied?

I have not sufficient confidence in any one remedy to put my whole trust in it, to the exclusion of other things that may be helpful in relieving a patient. Some of the highbrows have not yet reached that stage and insist upon giving one thing at a time, forgetting that we commonly eat bacon and eggs; bread and butter; coffee and cream, and would feel deprived if we had to consume these things separately.

HENRY R. HARROWER, M.D.

Glendale, Calif.

Vitamin D

RECENT experiments by Steenbock and his associates, of the University of Wisconsin, lead them to conclude that the vitamin D, produced by ordinary irradiation of ergosterol with a quartz-mercury lamp, is a different substance from that found in cod-liver oil. It is suggested that provitamin D activity is not necessarily limited to ergosterol, but may be a general property of different sterols.

Further studies, suggested by the concept of multiple vitamin D, may help to clarify and harmonize the beneficial effect of direct irradiation in rickets and some other discordant facts. Editorial in J.A.M.A., Aug. 13, 1932.

Convulsions in Children*

IN a study of 419 children under fifteen years of age, who were admitted to the Milwaukee Children's Hospital because of convulsions, a diagnosis was established in 93.3 percent. The study included a complete history, a careful physical examination, including neurologic studies, a blood count, a Wassermann test of the blood and micro-precipitation tests, urinalysis, examination of the spinal fluid (except in spasmophilia), examination of the ocular fundi, x-ray studies of the skull and examinations of the stools. In the past three years, encephalograms have been made in doubtful cases.

The findings reveal that certain diseases peculiar to childhood are the direct causes of most of the convulsions. While some children may be said to be particularly susceptible to the convulsive state, this study indicates that there is usually a physical basis for this susceptibility (spasmophilia or epilepsy), which is amenable to treatment.

Every convulsion produces a certain amount of cerebral injury, and therefore lowers the threshold for subsequent seizures. Every con-

*J.A.M.A., Aug. 13, 1932.

vulsion demands a careful study and effort to prevent a recurrence. It is extremely unfortunate that there are still physicians who consider convulsions a necessary evil of childhood and advise parents that the child will "outgrow" the tendency.

While many patients came in with diagnoses of thymic convulsions, worms, teething convulsions or toxic convulsions, a thorough examination eliminated these diagnoses. These conditions must truly be exceedingly rare. The teething convulsions were usually spasmophilias.

It appears that the idiopathic epilepsies represent stereotyped reactions, which are also observed in some brain injury residues (birth and traumatic), while most of the remaining seizures represent incoordinated "explosions."

Most of the convulsions in new-born infants are due to acute infections or to cerebral injury; in later infancy, they are due to spasmophilia, and in childhood, to idiopathic epilepsy.

M. G. PETERMAN, M.D.
Milwaukee, Wis.

Calcium Need and Calcium Utilization*

IN 1911, and again in 1931, Sherman called attention to the calcium deficiency of the average American dietary. He states that 0.45 gram of calcium fills the actual daily requirement for adults, but this represents the minimum of actual need rather than the normal allowance. Because of the uncertainty in regard to calcium absorption, he estimates that 0.70 gram is the optimum amount to be ingested daily. He believes that a number of weaknesses and increased susceptibilities to infection may be the results of calcium deficiency.

It has been my experience with normal persons that a sustaining diet, enriched by the addition of calcium and vitamins, makes for the difference between "passable" and "buoyant" health. Furthermore, marked improvement, which I have seen from high calcium intake in the treatment of various unrelated disorders, corroborates Sherman's opinion of the advantages of an adequate calcium diet in the recovery from diseases.

Sources of calcium supply are food, water and calcium salts, as such. Milk and cheese are the best food sources of calcium, and unless one or both is included in the daily diet, it is exceedingly difficult to fill the calcium need.

Calcium is absorbable through the small intestine, and the degree of absorption is governed by two main factors: (1) the hydrogen ion concentration within the intestine; and (2) the relative proportion of other substances in the diet. In an acid medium, soluble calcium salts, which can be absorbed, are formed. In an alkaline medium, insoluble calcium salts are formed and are not absorbable. An excess of fats in the diet interferes with the absorption of calcium. An excessive amount of phosphorus in proportion to calcium also inhibits absorption. Oxalic acid (present in leafy vegetables) combines with calcium to form insoluble calcium oxalate, which cannot be absorbed. Maltose and starch decrease absorption of both calcium and phosphorus. In hypersensitiveness, calcium is poorly absorbed, because of the high intestinal alkalinity.

Calcium exists in the blood in three forms: the non-diffusible, bound to protein; and the diffusible, of which there are two forms, the ionic and the complex ionic. A normal figure for the total blood calcium, in a given individual, may not indicate a normal calcium condition, since imbalances among the three forms may occur, even if the total amount is within the normal range. In a normal individual an adequate supply of protein, calcium, phosphorus and vitamin D will apparently assure a normal calcium balance. A diet adequate in calcium must supply from 0.70 to 1.0 gram of calcium daily. It may be obtained from one quart of milk or from one-fourth pound of cheese. Plenty of vitamin D must be added.

The amount of calcium needed daily may be obtained from 80 grains (5 Gms.) of calcium lactate or 160 grains (10 Gms.) of calcium gluconate.* Thirty drops of viosterol, or its equivalent, will supply sufficient vitamin D. In addition, the diet should be supplemented with 6 to 8 ounces of orange juice and the same amount of tomato juice. If calcium salts are used instead of milk and cheese, cod-liver oil or a concentrate is employed, in place of viosterol, to supply both vitamins A and D.†

ALICE R. BERNHEIM, M.D.
New York City

*J. A. M. A., Apr. 1, 1933.

Removal of Long-Retained Bullet (A Case Report)

MRS. N., a very obese woman of Italian birth, 47 years old, developed symptoms of suppuration on the posterior surface of her right thigh in May, 1926, which subsided under compresses of magnesium sulphate solution.

In September, 1926, she felt a lump in the same location, which she thought was a boil and opened with a pin; whereupon a bullet weighing 94 grains escaped from the opening, which was 3½ inches above her knee.

Inquiry revealed that, in 1906, she was accidentally shot in the abdomen, causing several intestinal perforations, which were treated surgically at once, though the bullet was not found.

This long retention of a missile and its migration to a distant area seem of sufficient interest to warrant a report.

J. M. MCGAVIN, M.D.
Portland, Ore.

*Two and one-half "Dulcets" (Abbott) of dicalcium phosphate, 38 grains (2.5 Gm.) each, daily, will supply sufficient calcium — ED.

†Thirty drops of Haliver Oil with Viosterol, 250D, will be more satisfactory than either viosterol, cod-liver oil or cod-liver oil concentrate. It will supply more vitamin A than nine teaspoonfuls of cod-liver oil and as much vitamin D as thirty drops of viosterol in oil 250 D. — ED.)

Hypertension*

CLINICAL examinations and follow-up studies of a large series of patients, have led to these conclusions:

1.—Hypertension is twice as frequently found in women as in men.

2.—The mortality rate after ten years is twice greater in men.

3.—Hypertension results from a constitutional hypertonicity of the automatic neurovascular control, in the large majority of instances, and is a compensatory angiospasm in the others.

4.—Treatment of uncomplicated hypertension is a matter of mental and physical hygiene, rather than of drugs.

5.—Treatment of late results of hypertension requires skillful use of medical and physical measures, added to psychotherapeutic measures.

6.—The physician who is a good and cheerful psychologist will be the most successful in relieving the symptoms of hypertensive cardiovascular disease.

DRS. J. M. BLACKFORD AND J. N. WILKINSON.
Seattle, Wash.

Dose of Diatussin

THROUGH a typographic error in our department of *Pertinent Paragraphs*, in the April issue, the dose of Diatussin was incorrectly stated. The manufacturers have never recommended a dose larger than 7 minims, and ordinarily not more than from 2 to 5 minims are required. Larger doses would not be dangerous but, since they are not required, they are wasteful.

Intestinal Intussusception

(A CASE REPORT)

PERSONAL HISTORY: Age, seven months; weight at birth, 12 pounds; instrumental delivery; never had any illness and seemed to be a normal, healthy baby in every way. Family history unimportant.

On June 4, 1932, the child began vomiting at about 11 A.M. and seemed restless, with slight fever and some pain, the nausea occurring every two or three hours. I did not see the baby until the next morning, when I prescribed ten drops of milk of magnesia in water every two hours and an isotonic saline enema.

The next morning the baby seemed no better and had passed about a teacupful of blood when the enema was given, so I went to see him and found that the nausea still continued and that he seemed to be in considerable pain, with a temperature of 101° F., and very restless and thirsty, but upon giving two or three teaspoonfuls of water the patient would immediately begin vomiting.

I decided to take this baby to St. Catherine's Hospital, at Garden City, Kansas, and after arriving at the hospital I ordered "anodyne for infants" and an enema. Nothing came away with the enema except a little gas. There was no tympany.

I made a diagnosis of intussusception, although I did not find evidence of a tumor in the same place that I had found it in three other cases of invagination of the bowel that I had seen; that is, in the lower sigmoid and upper rectum.

I watched this baby all day and there seemed to be no change, except that the abdomen appeared a little more full and the patient more restless.

About 7 P.M., I decided that we ought to operate. The patient was prepared and, upon opening the abdomen, we found that the lower part of the cecum and the ileum, with the ileocecal valve, had telescoped into the upper part of the cecum and ascending colon, with the tip of the appendix just protruding. The tumor was about five inches long. We reduced the invagination, removed the appendix and closed the abdominal wound. The patient made an uneventful recovery and has been in perfect health ever since.

The interesting thing about this case is the absence of typical symptoms, and that the early diagnosis and operation saved this baby's life. I believe that this baby would have died in forty-eight hours and that probably the typical symptoms might have developed too late to have permitted saving the baby's life, even with an operation.

H. H. MINER, M.D.
Ulysses, Kans.

Conditions Which Predispose to Arteriosclerosis*

A REVIEW of the pathologic material in 1,070 consecutive autopsies on individuals under 30 years of age revealed atherosclerosis occurring with far greater frequency in connection with certain disease conditions than with others.

Rheumatic heart disease was almost invariably accompanied by atheromatous changes in the aorta, pulmonary or coronary arteries.

All of the 4 diabetic cases presented atherosclerosis of the aorta.

Chronic renal lesions were found in 34 of the 52 nondiabetic non-rheumatic cases which presented atherosclerosis, and were present also in 10 of the 23 rheumatic cases. The renal arterioles were the vessels most frequently involved in these cases.

The only other pathologic lesions which occurred with notable frequency in the atherosclerotic group were: (1) Focal lesions in the suprarenal medullae and (2) hypoplasia of the malpighian corpuscles in the spleen.

DR. PEARL ZEEK.
Cincinnati, O.

*Ann. Intern. Med., July, 1932.

*Am. J. Med Sc., Sept., 1932.

THUMBNAIL THERAPEUTICS

Intracutaneous Vaccine Treatment of Infections

INSTEAD of injecting specific proteins or foreign proteins or protein products under the skin, I use a method which was learned abroad, by introducing the vaccines into the skin. We make these vaccinations by rubbing the vaccine into linear incisions made over a field of about 4½ by 6 inches in size. These cuts are made into the skin, without drawing any blood, down to the third papillary layer.

Furthermore, animal experiments have shown that, if living cultures are introduced into the skin, immunity could be produced, for instance, in diphtheria, and it was found that the bacteria taken up by the skin would be found dead in some 4 or 5 hours.

This method can be used in the treatment of various infections, particularly arthritis, sinus conditions and certain other infections, with very excellent results.—DR. J. G. W. GREEF, of New York, in *M. J. & Record*, Aug. 17, 1932.

Deformities of the Toes

IN CASES of chronic inflammation of the metatarsophalangeal joint of the great toe, the condition may easily be mistaken for arthritis. For its treatment, massage and diathermy are helpful and internally urecidin. In acute onset, local antiphlogistic treatment with Antiphlogistine (cataplasma kaolini) proved of great value. To lessen the pain when walking, it is recommended that two strips of wood, placed at right angles, be attached to the sole of the shoe in the area of the ball. — PRIV. DOZ. OSKAR STRACKER, in *Wien. Klin. Wchnschr.*, Jan., 1930.

Vitamin D

AT NO time in the child's life is the demand for the essential elements and, above all, for calcium and phosphorus, so great as in infancy and early childhood. At no time is the proper and orderly balance of these elements more easily disturbed and pathologically altered. It is for this reason that rickets, in varying degrees, is so widespread a disorder in this period of life and why the adequate introduction of the vitamin D factor is quite indispensable, not only as an optimal growth-producing factor, but as a rickets-preventive or curative factor as well.

Vitamin D is one of the indispensable essentials of the growing animal organism. The incidence of rickets has been diminished to a remarkable degree, and with it the complicating features which directly or indirectly were so large a result of this disorder and contributed in large measure to infant morbidity and mortality. Much is known about this important vitamin. There is much that is still mysterious and unknown.—DR. F. W. SCHULTZ, of Chicago, in J.A.M.A., July 30, 1932.

Suprarenal Cortical Extracts

IN VIEW of the undoubted influence of suprarenal cortical extract and the widespread effects which it is already known to produce, its use in the medical field will soon find wide application. With improved methods of preparation and the achievement of a more potent product, it is possible that oral treatment may be of distinct service. It is hoped that production may be rapid, so that the cost may be brought within the means of the less well-to-do patient. — Editorial in J. A. M. A., Jan. 2, 1932.

Endotracheal Anesthesia

THE fundamental principle of endotracheal anesthesia is the provision, by intubation, of an airway that is proof against obstruction. High-pressure insufflation is usually unnecessary.

Deep anesthesia is not essential for intubation.

Dexterity in intubation minimizes the disadvantages.

Owing to the greater ease with which intubation can be performed through the nose, this route should always be chosen when possible. — DR. I. W. MAGILL, London, Eng., in *Anesth. & Analg.*, July-Aug., 1931.

Home Versus Institutional Treatment of Pulmonary Tuberculosis

IN THE treatment of pulmonary tuberculosis, the main reliance is placed on rest and relaxation. By rest is meant bodily quiet; by relaxation is meant freedom from any strain of any sort. There are many reasons why a tuberculosis patient is best cared for in an institution especially conducted for the treatment of this disease and, in the majority of instances, at an appreciable distance from his home. The main points in institutional treatment — the education of the patient and his assimilation to routine — are very likely to be missed in home treatment. — DR. P. H. RINGER, of Asheville, N. C., in J.A.M.A., Aug. 8, 1931.

Dextrose in Therapeutics

THERE is no better way by which water can be brought into the tissues of the body at the very moment when the cells require fluid by reason of their metabolic activity, than by the use of glucose (dextrose). The fact, that each molecule of dextrose is metabolized completely, leaving six molecules of water within the tissue cells, while furnishing food and energy to them, has not been sufficiently stressed by physiologists and has not been completely understood by many surgeons. — Drs. R. W. McNealy and J. D. Willems, of Chicago, in *Illinois M. J.*, June, 1932.

Injection Treatment of Varicose Veins

BASED on the results obtained in 325 successive cases of varicose veins, treated in Bellevue Hospital, Drs. C. Weeks and R. S. Mueller, of New York, conclude that the injection treatment is the safest and surest method of ridding the patient of varicose veins. No mortality should occur if cases suffering from recent superficial phlebitis are excluded.

Injection is an effective method of treating varicose ulcer and varicose eczema. In the authors' series, 88 percent of such cases were healed and remained so, according to their follow-up observations.

The technic should be simple and single injections at each treatment should be given.— *Surg. Gynec. and Obstet.*, Jan., 1932.

Nerve Sectioning for Abdominal Pain

MANY patients with severe and unexplainable abdominal pain might perhaps be relieved by some form of nerve blocking.

Most of the pathways of sensory fibers leaving the abdomen do so by way of the splanchnic nerves. Various results have been reported in the literature from cutting of the various nerves or blocking them with novocaine (procaine) or alcohol, in animals or men.

Much needs to be learned about the possibilities and limitations of nerve sectioning for persistent abdominal pain and great care will have to be exercised in choosing patients for study or operation.—Dr. W. C. Alvarez, of the Mayo Clinic, in *Am. J. Surg.*, Nov., 1931.

Early Cataract Extraction

PROCRASTINATION in cataract work gives no advantage to patients and only allows the surgeon a "loop-hole." Losing a "blind eye" does not hurt one's reputation so much as losing an eye with 20/50 vision. — Drs. O'Gwyn and O'Gwyn, of Mobile, Ala., in *Eye, Ear, Nose and Throat Monthly*, Nov., 1931.

Look for THE LEISURE HOUR among the advertising pages at the back.

Tonsillectomy

THE dangers of surgical tonsillectomy at the present time are negligible, except for that which exists in any operative procedure. Careful anesthesia should be the rule. Postoperative hemorrhage can be avoided by not permitting the patient to leave the operating room until the fossae are entirely clean and dry.

Reliance should still be placed on surgery, unless the tonsils and other lymphoid tissues in the nose or pharynx can be eliminated by a less unpleasant process. The desiccation, fulguration and x-ray treatments for the elimination of the tonsils are not recommended and will soon be relegated to the past. Tonsillectomy in adults should be performed only under local anesthesia, to avoid postoperative complications. — Dr. J. Coleman Scal, of New York, in *M. J. and Record*, Feb. 3, 1932.

Cecostomy and Lavage in Mercuric Chloride Poisoning

ANALYSIS of 163 cases of mercury poisoning at the Mount Sinai Hospital, of Cleveland, reveals a number in which the patients survived the usual gastric and renal damage but succumbed to gangrenous colitis. Immediate cecostomy and constant colonic lavage was found the most effective measure for the prevention and treatment of the gangrenous colitis. — Dr. S. S. Berger and associates, of Cleveland, in *J.A.M.A.*, Feb. 27, 1932.

When Should a Tuberculous Kidney be Removed?

SURGICAL indications and contra-indications in tuberculous kidney turn largely upon whether the patient is primarily ill from extra-genitourinary tuberculosis or whether he is primarily ill from tuberculosis of the genito-urinary tract, with unilateral or bilateral renal involvement.

Renal tuberculosis, with major active tuberculosis outside the genito-urinary tract, particularly active pulmonary tuberculosis, usually has not been considered a surgical condition in the past. Unilateral renal tuberculosis, as a major cause of symptoms and illness, in the absence of active pulmonary tuberculosis or other major active tuberculosis lesions outside the genito-urinary tract, has been regarded as a surgical condition best treated by nephrectomy. There is no reason to depart from such a position today. — Dr. V. C. Hunt, of Los Angeles, in *Western J. Surg. Obstet. and Gynec.*, Jan., 1932.

The Nasal Mucosa

RECENTLY we have come to associate the pale, edematous nasal mucous membrane with alkalosis and, while no check has been made by a chemical study in these patients, we have, in a number of instances where other means failed, obtained gratifying results by the addition of acid-ash starches to the diet and the exhibition of nitro-hydrochloric acid after meals. — Dr. J. W. Jervey, Jr., of Greenville, S. C., in *Southern M. and S.*, Jan., 1932.

NEW BOOKS

That is a good book which is opened with expectation and closed with profit.—ALCOTT.

Clark: Budgeting for Health

HOW TO BUDGET HEALTH. Guilds for Doctors and Patients. *By Evans Clark, Director 20th Century Fund, Inc. New York and London: Harper and Brothers, 1933. Price, $4.00.*

The author has gone about this matter with the advice and aid of some physicians interested in professional individuality and other physicians and laymen interested in medical socialism. His preface statement, "The art of healing is a highly technical field, in which the layman must always be a trespasser by virtue of his ignorance," indicates that he realizes his limitations in writing on the subject.

He presents the essence of the book in the first chapter, in which he proposes the establishment of the medical guild, to apply to medical service the same methods of organization which have been successfully applied to other forms of business and public service. He defines "medical guild" as an institution combining three elements: (1) An all-round medical service, including hospitalization through a well balanced group of doctors; (2) a fixed annual fee covering such service; and (3) periodic health examinations. He refers to group practice, as carried on by the Mayo Clinic, hospitals and medical centers, as an increased tendency toward medical guild service, but makes it clear that no unit now in operation offers complete medical service to the general public on an annual fee basis. Membership in the guild would be open to the general public, on condition that each member agree, on behalf of himself and his family, to submit to a thorough physical examination at least once a year. The dues would be paid, preferably in advance, like an insurance premium, whether services were rendered or not. The plan is not new. It is just a step further than many of the medical service organizations now in operation. In fact, the health services of some universities approximate the plan in its entirety.

Chapter 12 is devoted to the attitude of the medical profession concerning a guild, as expressed by 17 leading doctors—two who opposed it, three who were noncommittal and twelve who were sympathetic. Chapter 13 is used to present the attitude of the public. Questionnaires concerning a medical guild service were sent to 1,500 carefully selected persons in and about New York City. Only nine percent replied, which may be interpreted as a manifestation of little interest in such a scheme, although the author characterizes the returns as "not unfavorable."

The author says, "Never has there been such acute public dissatisfaction with the organization of medical service." If that is true, it is because the average man does not want to bear the responsibility of looking after his own health and well being—the most personal of all things. At least, it should be as important as food, clothes and taxes, but to many men it is not, for, in addition to these items, they will even budget a certain amount each week or month for luxury and pleasure, but trust to luck that they will stay well.

A change in the attitude of the general public, favoring payment for all medical service rendered, is more desirable than a change in medical service or practice. It is not to be expected, of course, that the public attitude will change. For those who want medical service at a fixed rate, Mr. Clark offers a plan that is applicable anywhere and everywhere and it is logical to assume that enough physicians will consider it sufficiently meritorious to give it a trial. It would help some people who now pay heavy fees yearly, would offer others a chance to have more medical service at a reasonable rate, and would be of no interest at all to those who are chronic objects of charity when they could and should pay, if health were as important to them as a constant supply of cigarettes or cosmetics. It has advantages and disadvantages, both for the public and for the medical profession. It would not appeal or be applicable (within itself) to all classes. Many physicians will condemn it and so will those laymen who prefer free choice of a physician and the satisfactory medical service that such choice makes available.

The book is of interest to everyone, since everyone must, eventually, be concerned with any change in medical service.

Wyatt: Arthritis

CHRONIC ARTHRITIS AND FIBROSITIS. Diagnosis and Treatment. *By Bernard Langdon Wyatt, M.D., F.A.C.P., Director, The Wyatt Clinic, Tucson, Arizona. Published by William Wood & Company, a Division of the Williams and Wilkins Company, Baltimore, 1933. Price, $3.50.*

This book has been written following the favorable comments and favorable criticisms of the author's earlier volume, "Chronic Arthritis and Rheumatoid Affections with Recovery Record." This is a more detailed work of a technical character, apparently written chiefly from the author's experiences.

Although the facts regarding illness from rheumatism do not make cheerful reading, the author is convinced that the outlook is not so dark as we are inclined to believe and that improvement will take place as soon as the facilities available are better known to the practitioners who treat most such cases. Space is devoted chiefly to etiology, pathology, diagnosis and treatment. One long chapter is de-

voted to special therapeutic measures, in which the author discusses diet, drugs, vitamins, endocrine substances, vaccines, surgery and all forms of physical therapy. He recommends either colchicum or cinchophen in the treatment of gout, merely mentioning the occasional untoward effects of the latter on the liver. The reviewer feels that that is an oversight: Medical literature shows cinchophen to be far too dangerous for the author to recommend and then dismiss it with no further statement of its poisonous action. Dietary and physical therapy measures are gone into in considerable detail. The facts recorded will do much to make the usual treatment more effective.

The book is written particularly for the general practitioner and internist. It furnishes a good general perspective of chronic arthritis.

Medical Education

METHODS AND PROBLEMS OF MEDICAL EDUCATION. *Twenty-First Series, New York: The Rockefeller Foundation.* 1932. *Price, Gratis upon request.*

This is the last volume in the series on "Methods and Problems of Medical Education," which was begun in 1924 and has now extended through twenty-one volumes. The changing facilities and methods in the field of medical education have been covered fully. This volume is devoted to Nursing Education and Schools of Nursing, with a consideration of these activities in the United States and Canada, China, Denmark, England, Finland, France, Hungary and Siam. Almost one-half of its 218 pages of text are devoted to several of the leading Schools of Nursing in the United States. Because of the relationship between Medicine and Nursing, it is a fitting volume with which to end the series. It will appeal, particularly, to nurses and directors of nursing interested in the development and extension of nursing schools and service.

Hutton: Erotology

THE SEX TECHNIC IN MARRIAGE. *By Isabel Emslie Hutton, M.D. Foreword By Ira S. Wile, M.D., Former Commissioner of Education, New York City; Associate in Pediatrics, Mount Sinai Hospital; President, American Orthopsychiatric Association; Associate Editor, American Medicine; Member, National Committee for Mental Hygiene; Fellow, American Psychiatric Society; Fellow, American Public Health Association. New York: Emerson Books, Inc.* 1932. *Price* $2.00.

This is another addition to the erotologic literature in America, and while, for the intellectually and emotionally adult, it is not so good as the best works of the kind (such as those of Long and Van de Velde), it is a good deal better than none. One wonders how long it will take even the advanced thinkers among women to escape from the age-old taboos so as to write as freely and helpfully along these lines as several men have written.

In general, Dr. Hutton's ideas, on all phases of the subject, are thoroughly sound, as far as they go, and are expressed with a satisfying degree of impersonality and objectiveness.

This book can be recommended to those who, just emerging from the fog of prurient mystery which has long surrounded the subject of sex, might be a bit upset by the more complete and explicit works, and to parents who desire to prepare themselves for instructing their children along these lines, and who, incidentally, will probably learn many things for their own profit.

Richards: Child Conduct

BEHAVIOR ASPECTS OF CHILD CONDUCT. *By Esther Loring Richards, B.A., M.D., D.Sc., Associate Professor of Psychiatry, John Hopkins School of Medicine; Physician-in-Charge of the Dispensary, Henry Phipps Psychiatric Clinic, Johns Hopkins Hospital. New York: The Macmillan Company.* 1932. *Price* $2.50.

This book is a series of lectures given for the Child Study Association of America, on the treatment of conditions commonly ascribed to the "badness" or "nerves" of childhood.

The main trend of the book is, "What I want and what I like, that I must and will have," and the discipline required to fit children to meet every-day living. This main point is touched on in various forms throughout the book. "Behaviour is dependent on two kinds of facts: first the stuff out of which we are made — biologic, intellectual, tempermental; second, the way environment and training have moulded this constitutional stuff."

Chapter V, The Importance of Habit Training During Early Years, is one of the best chapters in the book and boils down to the point, "We call this training discipline. Without its beneficient influence on our habit life, the accumulation of academic knowledge is empty and meaningless," which is again a reiteration of the main theme.

These lectures are of undoubted value and stress the fact that, in helping a child, the doctor, the parents and the teacher must first get the help of the child and his reactions, before they can work together to accomplish the aim of overcoming the "badness."

This book is good reading for all parents of young children, pediatricians and teachers.

M.L.B.L.

Pallister: Poems of Science

POEMS OF SCIENCE. *By William Pallister New York: Playford Press, 11 West 42nd Street.* 1931. *Price* $2.50.

It is always easier to memorize verse than prose, so it is sound pedagogics to set forth the basic truths of science in rhyme and meter. Moreover, there are intangible values — spiritual values, if one please — in the facts of science, which can be brought out only by the poet.

By the standards of artistic values, most of these contributions are not poetry, but more or less sound didactic verse — some excellent; some badly strained; most of them interesting.

The science is better than the poetry, and the spiritual insight which shows through every now and then is refreshing, in the midst of the sterile deserts of materialism which too many "scientific" books now are.

This volume can be recommended to those who wish to gain a talking acquaintance with the present status of scientific knowledge, in a rather superficial, but entertaining and readily assimilable form. Written by a physician, it ought to appeal to a great many medical men and other busy people who need to know a number of things for which they have no time to dig deeply.

Bainbridge: Military Medicine and Pharmacy

SIXTH INTERNATIONAL CONGRESS OF MILITARY MEDICINE AND PHARMACY AND MEETINGS OF THE PERMANENT COMMITTEE, THE HAGUE, NETHERLANDS, JUNE, 1931: *Report of Commander William Seaman Bainbridge M. C.-F., U.S.N.R., for the Delegation from the United States of America. Published by the U. S. Government Printing Office, Washington, 1933. Price $1.00 (cloth).*

Contains lists of the local officers of the congress and of the official delegates attending. Considers the subjects reported upon, namely: (1) Recruiting and training of military medical officers and pharmacists; (2) psychoneuroses of war; (3) methods of hemostasis on the battlefield; (4) preparation and storage of medicinal ampules in use in the naval and military medical services; (5) the sequelae of war wounds of the teeth and inferior maxilla. Reports the conclusions reached. Those interested will find enlightening material on these matters.

De Lee: Obstetrics

THE PRINCIPLES AND PRACTICE OF OBSTETRICS. *By Joseph B. De Lee, A.M., M.D., Professor of Obstetrics and Gynecology at the University of Chicago; Chief of Obstetrics, Chicago Lying-in Hospital and Dispensary; Consulting Obstetrician to Provident Hospital, to the Chicago Maternity Center, etc. With 1221 illustrations on 923 Figures, 265 of them in colors. Sixth Edition, Thoroughly Revised. Philadelphia and London: W. B. Saunders Company. 1933. Price, $12.00.*

The subject of obstetrics is covered fully in all its phases. Revisions have been made and new material added as indicated. The author has kept in mind and given particular attention to the family doctor, "the obstetrician to the people," and a method has been presented for carrying out an efficient antisepsis and asepsis in the most discouraging surroundings. Local anesthesia has been given the prominence it has come to deserve, and the newer narcotics of the barbituric acid group receive a proper evaluation. A full description of the Aschheim-Zondek pregnancy test and a colored plate showing the reaction in the mouse are presented. In keeping with former editions of Doctor De Lee's textbook, this one is designed for the student, the teacher and the practitioner.

Pitkin: Life Begins at Forty

LIFE BEGINS AT FORTY. *By Walter B. Pitkin, Professor in Journalism, Columbia University. New York & London: Whittlesey House, McGraw-Hill Book Company, Inc. 1932. $1.50.*

It has been said that this is the era of the young, but Pitkin shows that the development of machinery which can take the place of human muscular and nervous energy, has deprived the young of the only prime advantage they have over those who are older, and has placed an unexampled premium upon the experience, poise and wisdom which come only with advancing age.

The keynote of this essay is: If a man or woman has any brains and sense and will act his or her age, the richest, most fruitful, most efficient and happiest years are those after forty. The author outlines the types of activity which are suitable to various age periods and shows how to plan a life so that it can, truly, "begin at forty."

Pitkin is quite right in saying that this is not a book for fools, and that such will gain no profit from it. Others will find it helpful and exciting. The best results will be obtained by those who read it at twenty and begin to plan: but the older ones will sense its values more readily.

Vogelsang: Eye Diseases

AUGENHEILKUNDE DES PRAKTISCHEN ARZTES. *Ein Leitfaden für Ärzte und Studierende. By Dr. K. Vogelsang, Privatdozent of the University of Bonn. Berlin and Vienna: Urban and Schwarzenberg, 1933. Price $1.00. (4 Rm.)*

This is a "Compend of Ophthalmology," primarily prepared for general practitioners and for students. The author has taken into consideration that many physicians are called upon to treat a number of more or less common affections of the eye, even to refract for errors, which, the author properly points out, rightly should be handled by physicians and not by the ever increasing number of optometrists, and has outlined the advantages of ophthalmic examinations in certain general diseases, both from the standpoint of early diagnosis and proper therapy. While perhaps more space should have been devoted to the use of the ophthalmoscope, the scope of the book is ample for the needs of general practitioners who read German.

G.M.B.

MEDICAL NEWS

© Keystone View Co.

Masters of Surgery

THE high medical degree, Master of Surgery, was recently conferred upon Mrs. Philippa Martin, F.R.C.S., at the Foundation Day of the University of London. Her husband, with whom she is shown in the picture, is also a Master of Surgery, and they are the only couple to have been thus honored, up to now.

A.M.A. Meeting

THE eighty-fourth annual meeting of the American Medical Association will be held in Milwaukee, Wis., June 12 to 16, inclusive.

Every physician should be considering this meeting in his plans for the early summer. Milwaukee is a friendly city with a fine municipal auditorium for the sessions and exhibits. Chicago is next door, and two birds can be killed with one stone by taking in the great Century of Progress Exposition on the same trip. Better make hotel reservations now.

Institute of Homeopathy

THE American Institute of Homeopathy will hold its eighty-ninth annual meeting at the Morrison Hotel, Chicago, June 18 to 22, inclusive. Full particulars may be had from Dr. A. H. Gordon, 858 No. La Salle St., Chicago.

One trip can be made to cover this meeting and that of the A.M.A., as well as the Century of Progress Exposition.

American Public Health Association

THE American Public Health Association announces its Sixty-second Annual Meeting, to be held in Indianapolis, Indiana, October 9 to 12, 1933.

The scientific program will discuss every aspect of modern public health practice, from the viewpoint of the health officer, the laboratory worker, the epidemiologist, the child hygienist, the industrial hygienist, the nurse, the vital statistician, the health educator, the food and nutrition expert and the sanitary engineer. Distinguished scientific pronouncements may be expected from the outstanding personalities in the public health profession who will contribute to the program.

The American Public Health Association, 450 Seventh Avenue, New York City, will be glad to send more complete information about its Indianapolis Annual Meeting, to anyone interested.

Opening in Kansas

A PHYSICIAN who desires to retire on account of age would like to find a capable and energetic man to take over his practice, in a good rural town, having good schools.

Write for particulars to Dr. R. E. Egan, Spring Hill, Kans.

Postgraduate Work in Europe

THE Tomarkin Foundation offers its fifth International Postgraduate course in allergy, diseases of the blood and of metabolism, physical therapy (climatology and hydrotherapy) and arthritis, August 13 to 27, 1933, inclusive. Full information may be obtained from the Secretary of the Foundation, Box 128, Locarno, Switzerland.

International Hospital Association

THE third international hospital congress of the International Hospital Association will be held at Knocke sur Mer, Belgium, June 28 to July 3, inclusive, 1933. For full particulars, write to Dr. E.H.L. Corwin, 2 East 103d St., New York City.

SEND FOR THIS LITERATURE

TO ASSIST doctors in obtaining current literature published by manufacturers of equipment, pharmaceuticals, physicians' supplies, foods, etc., CLINICAL MEDICINE AND SURGERY, North Chicago, Ill., will gladly forward requests for such catalogues, booklets, reprints, etc., as are listed from month to month in this department. Some of the material now available in printed form is shown below, each piece being given a key number. For convenience in ordering, our readers may use these numbers and simply send requests to this magazine. Our aim is to recommend only current literature which meets the standards of this paper as to reliability and adaptability for physician's use.

Both the literature listed below and the service are free. In addition to this, we will gladly furnish such other information as you may desire regarding additional equipment, or medicinal supplies. **Make use of this department.**

I- 47 Campho-Phenique in Major and Minor Surgery. Campho-Phenique Company.

I-504 Bedtime Nourishment. Mellin's Food Co.

I-571 Detoxification in the Treatment of Intestinal Infections. The Wm. S. Merrell Company.

I-596 The Pneumonic Lung. Its Physical Signs and Pathology. The Denver Chemical Mfg. Co.

I-610 Bischoff Pharmaceutical Specialties. Ernst Bischoff Co., Inc.

I-611 Vera-Perles of Sandalwood Compound. The Paul Plessner Company.

I-612 Taurocol. The Paul Plessner Co.

I-613 Specific Urethritis — Gonosan "Riedel." Riedel & Co., Inc.

I-635 Niazo, Schering, a Modern Genito-Urinary Antiseptic for Oral Use. Schering Corporation.

I-636 Science's latest contribution to female sex hormone therapy — Progynon. Schering Corporation.

I-642 Ergoapiol (Smith) and Glykeron Martin H. Smith Co.

I-672 Inflammation and Congestion. Numotizine, Inc.

USE THIS COUPON!

Enter below the numbers of the literature you desire (on both sides of this page); check your profession in the proper square; tear off and mail to CLINICAL MEDICINE AND SURGERY, North Chicago, Illinois.

We will do the rest!

Nos. _____

_____

_____

Name _____

Address _____

☐ Doctor of Medicine ☐ Dentist ☐ Nurse

☐ Registered Pharmacist ☐ Medical Student

I-679 The Gastric Temperament — Cal-Bis-Ma. William R. Warner & Co., Inc.

I-699 The Illinois Post-Graduate Medical School Bulletin. The Illinois Post-Graduate Medical School, Inc.

I-718 For more than 25 years the Dental and Medical Profession have recommended Revelation Tooth Powder. August E. Drucker Company.

I-719 Tetanus-Perfrigens (Tetanus Gas-Gangrene) Antitoxin. The National Drug Company.

I-720 National Hay Fever Antigens. The National Drug Company.

I-725 The Hormone — April, 1933. The Harrower Laboratory, Inc.

I-729 Endo Products Price List. Intravenous Products Company of America, Inc.

I-736 The Male Climacteric and Related Conditions. The Harrower Laboratory, Inc.

I-737 Descriptive Booklet. Od Peacock Sultan Co.

I-738 Bismuth Suspension for Intramuscular Use Only in All Stages of Syphilis. Endo Products, Inc.

I-739 Yeast Therapy. Based on the Published Findings of Distinguished investigators and Physicians. Standard Brands Incorporated.

I-742 Dilaudid a morphine derivative. An Advance in Opiate Medication. Bilhuber-Knoll Corp.

I-744 Effective Inhalation Therapy. Vapo-Cresolene Co.

I-746 Dr. Weirick's Sanitarium. Dr. G. A. Weirick.

I-750 Headache — Peralga. Schering & Glatz, Inc.

I-751 Nerves in Revolt — Agarol, William R. Warner & Co., Inc.

I-752 Fourth Edition of Diagnosis of Genito-Urinary Diseases and Syphilis. Od Peacock Sultan Co.

I-753 Even the eyes reveal it — Agarol. William R. Warner & Co., Inc.

I-754 Colds and the Stomach—Cal-Bis-Ma. William R. Warner & Co., Inc.

I-755 Anal Fissure or Hemorrhoids? Schering & Glatz, Inc.

I-758 Actual Experiences with Endocrine Toxemias. The Harrower Laboratory, Inc.

I-759 From "Poultesse" to "Cataplasm-Plus." Numotizine, Incorporated.

I-760 "Century of Progress" Catalog. McIntosh Electrical Corporation.